

ALMANAC

XXI

SAROS SERIES OF SOLAR ECLIPSES

The almanac XXI contains saros series of solar eclipses
from saros series 0 to saros series 180.

SAROS SERIES

0

Saros series 0 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-37	-2955 May 23	01:44:25	72618	-61281	Pb	-1.4703	0.1118	70.1S	141.7E	0		
-----	-36	-2937 Jun 03	09:07:56	72071	-61058	P	-1.4035	0.2421	69.4S	15.9E	0		
-----	-35	-2919 Jun 13	16:32:41	71525	-60835	P	-1.3378	0.3695	68.5S	109.7W	0		
-----	-34	-2901 Jun 25	00:03:05	70982	-60612	P	-1.2770	0.4869	67.6S	123.9E	0		
-----	-33	-2883 Jul 05	07:37:34	70440	-60389	P	-1.2196	0.5967	66.6S	3.1W	0		
-----	-32	-2865 Jul 16	15:19:07	69901	-60166	P	-1.1685	0.6936	65.6S	131.3W	0		
-----	-31	-2847 Jul 26	23:06:29	69364	-59943	P	-1.1225	0.7795	64.6S	99.4E	0		
-----	-30	-2829 Aug 07	07:02:27	68829	-59720	P	-1.0841	0.8503	63.7S	31.7W	0		
-----	-29	-2811 Aug 17	15:05:47	68295	-59497	P	-1.0523	0.9078	62.8S	164.2W	0		
-----	-28	-2793 Aug 28	23:16:24	67764	-59274	P	-1.0270	0.9528	62.1S	61.7E	0		
-----	-27	-2775 Sep 08	07:34:39	67235	-59051	P	-1.0086	0.9842	61.4S	74.1W	0		
-----	-26	-2757 Sep 19	15:59:44	66709	-58828	Ts	-0.9967	1.0054	60.2S	152.6E	2	-	00m21s
-----	-25	-2739 Sep 30	00:31:07	66184	-58605	H	-0.9905	1.0018	58.6S	22.5E	7	52	00m07s
-----	-24	-2721 Oct 11	09:06:18	65661	-58382	A	-0.9882	0.9977	59.2S	114.5W	8	58	00m09s

----- -23 -2703 Oct 21 17:45:46 65140 -58159 A -0.9900 0.9935 60.6S 103.6E 7 183 00m24s
 ----- -22 -2685 Nov 02 02:26:47 64622 -57936 A -0.9939 0.9895 61.7S 41.9W 5 433 00m36s
 ----- -21 -2667 Nov 12 11:08:00 64105 -57713 A- -0.9987 0.9903 61.1S 167.2E 0
 ----- -20 -2649 Nov 23 19:47:11 63591 -57490 P -1.0027 0.9821 61.6S 26.3E 0
 ----- -19 -2631 Dec 04 04:23:27 63078 -57267 P -1.0050 0.9771 62.3S 113.9W 0
 ----- -18 -2613 Dec 15 12:54:06 62568 -57044 P -1.0034 0.9792 63.1S 107.0E 0
 ----- -17 -2595 Dec 25 21:17:52 62060 -56821 As -0.9971 0.9799 65.0S 29.5W 1 - 01m02s
 ----- -16 -2576 Jan 06 05:33:44 61553 -56598 A -0.9852 0.9817 73.3S 157.8W 9 426 01m00s
 ----- -15 -2558 Jan 16 13:41:02 61049 -56375 A -0.9676 0.9829 79.8S 67.8E 14 254 00m58s
 ----- -14 -2540 Jan 27 21:36:58 60547 -56152 A -0.9413 0.9843 86.0S 93.4W 19 170 00m56s
 ----- -13 -2522 Feb 07 05:23:18 60047 -55929 A -0.9082 0.9855 83.5S 53.1E 24 125 00m55s
 ----- -12 -2504 Feb 18 12:58:12 59550 -55706 A -0.8666 0.9867 75.8S 84.0W 30 95 00m54s
 ----- -11 -2486 Feb 28 20:24:12 59054 -55483 A -0.8189 0.9876 67.5S 153.7E 35 76 00m54s
 ----- -10 -2468 Mar 11 03:37:45 58560 -55260 A -0.7619 0.9883 58.6S 36.9E 40 64 00m55s
 ----- -09 -2450 Mar 22 10:44:07 58068 -55037 A -0.7001 0.9884 49.8S 76.9W 45 57 01m00s
 ----- -08 -2432 Apr 01 17:40:21 57579 -54814 A -0.6305 0.9881 40.6S 172.2E 51 54 01m06s
 ----- -07 -2414 Apr 13 00:30:50 57091 -54591 A -0.5572 0.9872 31.6S 63.3E 56 54 01m17s
 ----- -06 -2396 Apr 23 07:13:22 56606 -54368 A -0.4782 0.9857 22.5S 43.3W 61 57 01m32s
 ----- -05 -2378 May 04 13:53:19 56122 -54145 A -0.3978 0.9837 13.7S 148.8W 66 63 01m52s
 ----- -04 -2360 May 14 20:28:58 55641 -53922 A -0.3146 0.9810 5.2S 107.3E 72 71 02m16s
 ----- -03 -2342 May 26 03:03:49 55162 -53699 A -0.2314 0.9778 3.0N 4.1E 77 81 02m44s
 ----- -02 -2324 Jun 05 09:38:13 54685 -53476 A -0.1486 0.9740 10.6N 98.2W 82 94 03m15s
 ----- -01 -2306 Jun 16 16:15:31 54210 -53253 Am -0.0688 0.9698 17.5N 159.5E 86 109 03m46s
 ----- 00 -2288 Jun 26 22:55:37 53737 -53030 A 0.0078 0.9651 23.6N 57.6E 89 126 04m16s
 ----- 01 -2270 Jul 08 05:40:04 53266 -52807 A 0.0800 0.9601 28.6N 44.5W 85 145 04m45s
 ----- 02 -2252 Jul 18 12:30:36 52797 -52584 A 0.1465 0.9550 32.4N 147.2W 81 166 05m12s
 ----- 03 -2234 Jul 29 19:28:11 52330 -52361 A 0.2067 0.9497 34.8N 109.0E 78 189 05m38s
 ----- 04 -2216 Aug 09 02:33:09 51865 -52138 A 0.2599 0.9445 35.8N 3.7E 75 212 06m03s

----- 05 -2198 Aug 20 09:46:37 51403 -51915 A 0.3055 0.9393 35.4N 103.9W 72 236 06m29s
 ----- 06 -2180 Aug 30 17:08:50 50942 -51692 A 0.3432 0.9345 33.9N 145.7E 70 259 06m56s
 ----- 07 -2162 Sep 11 00:40:12 50483 -51469 A 0.3730 0.9300 31.4N 32.4E 68 281 07m24s
 ----- 08 -2144 Sep 21 08:18:06 50027 -51246 A 0.3971 0.9260 28.3N 83.3W 66 301 07m54s
 ----- 09 -2126 Oct 02 16:04:33 49573 -51023 A 0.4137 0.9225 24.7N 158.1E 65 318 08m26s
 ----- 10 -2108 Oct 12 23:56:31 49120 -50800 A 0.4253 0.9196 20.8N 37.7E 65 332 08m58s
 ----- 11 -2090 Oct 24 07:54:12 48670 -50577 A 0.4322 0.9175 16.9N 84.5W 64 342 09m31s
 ----- 12 -2072 Nov 03 15:53:32 48222 -50354 A 0.4375 0.9160 13.3N 152.8E 64 350 10m04s
 ----- 13 -2054 Nov 14 23:55:36 47776 -50131 A 0.4403 0.9153 9.9N 29.3E 64 354 10m34s
 ----- 14 -2036 Nov 25 07:56:41 47332 -49908 A 0.4438 0.9152 7.2N 93.8W 64 356 11m02s
 ----- 15 -2018 Dec 06 15:55:26 46890 -49685 A 0.4490 0.9159 5.2N 143.8E 63 355 11m23s
 ----- 16 -2000 Dec 16 23:49:28 46450 -49462 A 0.4578 0.9172 4.2N 22.6E 63 352 11m36s
 00043 17 -1982 Dec 28 07:38:06 46012 -49239 A 0.4710 0.9191 4.2N 97.2W 62 346 11m38s
 00086 18 -1963 Jan 07 15:19:18 45577 -49016 A 0.4901 0.9215 5.4N 144.8E 61 340 11m26s
 00129 19 -1945 Jan 18 22:51:51 45143 -48793 A 0.5161 0.9243 7.8N 28.7E 59 333 10m58s
 00172 20 -1927 Jan 29 06:15:48 44711 -48570 A 0.5491 0.9274 11.5N 85.7W 57 326 10m18s
 00216 21 -1909 Feb 09 13:30:39 44282 -48347 A 0.5892 0.9307 16.3N 161.6E 54 320 09m28s
 00260 22 -1891 Feb 19 20:35:10 43854 -48124 A 0.6381 0.9340 22.4N 50.9E 50 318 08m31s
 00305 23 -1873 Mar 03 03:31:18 43429 -47901 A 0.6938 0.9372 29.6N 58.7W 46 321 07m32s
 00352 24 -1855 Mar 13 10:18:56 43006 -47678 A 0.7566 0.9402 37.9N 167.3W 41 335 06m34s
 00398 25 -1837 Mar 24 17:00:38 42584 -47455 A 0.8244 0.9428 47.3N 83.7E 34 369 05m39s
 00443 26 -1819 Apr 03 23:34:14 42165 -47232 A 0.8990 0.9446 58.2N 28.1W 26 465 04m48s
 00489 27 -1801 Apr 15 06:05:13 41748 -47009 A 0.9760 0.9447 70.3N 160.1W 12 988 04m02s
 00536 28 -1783 Apr 25 12:31:39 41333 -46786 P 1.0571 0.8684 71.3N 51.5E 0
 00581 29 -1765 May 06 18:57:36 40920 -46563 P 1.1387 0.7279 70.8N 60.2W 0
 00626 30 -1747 May 17 01:22:07 40509 -46340 P 1.2218 0.5842 70.1N 170.9W 0
 00671 31 -1729 May 28 07:49:57 40101 -46117 P 1.3024 0.4438 69.3N 78.1E 0
 00718 32 -1711 Jun 07 14:20:18 39694 -45894 P 1.3815 0.3056 68.4N 33.0W 0

00762 33 -1693 Jun 18 20:55:31 39289 -45671 P 1.4570 0.1734 67.4N 144.8W 0
00806 34 -1675 Jun 29 03:37:03 38887 -45448 Pe 1.5277 0.0493 66.4N 102.4E 0

SAROS SERIES

1

Saros series 1 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-34	-2872 Jun 04	00:25:53	70113	-60254	Pb	1.5057	0.0943	62.0N	23.8W	0		
-----	-33	-2854 Jun 15	06:53:07	69575	-60031	P	1.4288	0.2278	62.7N	132.0W	0		
-----	-32	-2836 Jun 25	13:23:43	69039	-59808	P	1.3545	0.3561	63.5N	118.8E	0		
-----	-31	-2818 Jul 06	20:01:18	68506	-59585	P	1.2859	0.4735	64.4N	7.5E	0		
-----	-30	-2800 Jul 17	02:45:26	67974	-59362	P	1.2228	0.5807	65.4N	105.8W	0		
-----	-29	-2782 Jul 28	09:38:34	67444	-59139	P	1.1667	0.6751	66.4N	138.3E	0		
-----	-28	-2764 Aug 07	16:39:37	66916	-58916	P	1.1171	0.7579	67.5N	20.0E	0		
-----	-27	-2746 Aug 18	23:51:19	66391	-58693	P	1.0762	0.8254	68.5N	101.6W	0		

----- -26 -2728 Aug 29 07:11:38 65867 -58470 P 1.0423 0.8806 69.5N 134.1E 0
 ----- -25 -2710 Sep 09 14:41:04 65346 -58247 A+ 1.0160 0.9233 70.3N 6.8E 0
 ----- -24 -2692 Sep 19 22:19:18 64826 -58024 An 0.9966 0.9073 71.9N 127.6W 2 - 06m11s
 ----- -23 -2674 Oct 01 06:05:22 64309 -57801 An 0.9832 0.9073 72.2N 73.4E 10 - 06m52s
 ----- -22 -2656 Oct 11 13:58:13 63793 -57578 An 0.9754 0.9063 69.0N 65.5W 12 - 07m25s
 ----- -21 -2638 Oct 22 21:54:48 63280 -57355 An 0.9702 0.9059 65.6N 160.8E 13 - 07m54s
 ----- -20 -2620 Nov 02 05:55:51 62769 -57132 An 0.9685 0.9059 62.7N 29.4E 14 - 08m18s
 ----- -19 -2602 Nov 13 13:57:33 62260 -56909 A 0.9666 0.9066 59.9N 101.2W 14 1437 08m39s
 ----- -18 -2584 Nov 23 21:59:00 61753 -56686 A 0.9642 0.9080 57.1N 128.8E 15 1365 08m54s
 ----- -17 -2566 Dec 05 05:56:49 61248 -56463 A 0.9584 0.9103 53.9N 0.0E 16 1228 09m05s
 ----- -16 -2548 Dec 15 13:51:19 60745 -56240 A 0.9494 0.9135 50.4N 127.2W 18 1070 09m08s
 ----- -15 -2530 Dec 26 21:39:37 60245 -56017 A 0.9347 0.9174 46.5N 107.8E 20 896 09m04s
 ----- -14 -2511 Jan 06 05:20:55 59746 -55794 A 0.9138 0.9219 42.3N 14.4W 24 732 08m50s
 ----- -13 -2493 Jan 17 12:53:57 59249 -55571 A 0.8854 0.9271 38.1N 133.5W 27 590 08m25s
 ----- -12 -2475 Jan 27 20:18:48 58755 -55348 A 0.8497 0.9326 34.2N 110.3E 32 473 07m50s
 ----- -11 -2457 Feb 08 03:34:25 58262 -55125 A 0.8059 0.9385 30.7N 2.7W 36 379 07m06s
 ----- -10 -2439 Feb 18 10:41:42 57772 -54902 A 0.7542 0.9445 27.7N 112.9W 41 304 06m18s
 ----- -09 -2421 Mar 01 17:40:58 57283 -54679 A 0.6952 0.9507 25.3N 139.7E 46 245 05m28s
 ----- -08 -2403 Mar 12 00:34:02 56797 -54456 A 0.6297 0.9566 23.6N 34.4E 51 198 04m39s
 ----- -07 -2385 Mar 23 07:19:14 56313 -54233 A 0.5570 0.9625 22.4N 68.4W 56 160 03m55s
 ----- -06 -2367 Apr 02 14:01:06 55831 -54010 A 0.4803 0.9679 21.7N 170.0W 61 129 03m16s
 ----- -05 -2349 Apr 13 20:38:03 55351 -53787 A 0.3987 0.9731 21.4N 90.1E 66 104 02m41s
 ----- -04 -2331 Apr 24 03:15:01 54873 -53564 A 0.3155 0.9778 21.2N 9.6W 71 83 02m13s
 ----- -03 -2313 May 05 09:49:04 54397 -53341 A 0.2289 0.9820 21.0N 108.3W 77 66 01m48s
 ----- -02 -2295 May 15 16:26:49 53923 -53118 A 0.1442 0.9855 20.5N 152.1E 82 52 01m28s
 ----- -01 -2277 May 26 23:05:36 53451 -52895 A 0.0595 0.9885 19.6N 52.2E 86 40 01m11s
 ----- 00 -2259 Jun 06 05:50:05 52982 -52672 A -0.0214 0.9910 18.2N 49.2W 89 32 00m58s
 ----- 01 -2241 Jun 17 12:38:40 52514 -52449 A -0.1001 0.9928 16.1N 152.0W 84 25 00m48s

----- 02 -2223 Jun 27 19:35:53 52048 -52226 Am -0.1724 0.9942 13.5N 102.7E 80 21 00m40s
 ----- 03 -2205 Jul 09 02:40:02 51585 -52003 A -0.2398 0.9950 10.2N 4.9W 76 18 00m35s
 ----- 04 -2187 Jul 19 09:53:32 51124 -51780 A -0.3003 0.9954 6.4N 115.4W 73 17 00m32s
 ----- 05 -2169 Jul 30 17:16:29 50664 -51557 A -0.3537 0.9956 2.1N 131.2E 69 17 00m31s
 ----- 06 -2151 Aug 10 00:50:30 50207 -51334 A -0.3986 0.9955 2.4S 14.7E 66 17 00m31s
 ----- 07 -2133 Aug 21 08:34:47 49752 -51111 A -0.4361 0.9954 7.1S 104.8W 64 18 00m31s
 ----- 08 -2115 Aug 31 16:29:36 49299 -50888 A -0.4657 0.9952 11.9S 132.8E 62 19 00m31s
 ----- 09 -2097 Sep 12 00:34:41 48847 -50665 A -0.4877 0.9953 16.7S 7.8E 61 19 00m30s
 ----- 10 -2079 Sep 22 08:49:23 48399 -50442 A -0.5025 0.9955 21.6S 119.6W 60 18 00m27s
 ----- 11 -2061 Oct 03 17:11:53 47952 -50219 A -0.5118 0.9962 26.3S 111.3E 59 15 00m22s
 ----- 12 -2043 Oct 14 01:42:19 47507 -49996 A -0.5154 0.9972 31.0S 19.4W 59 11 00m16s
 ----- 13 -2025 Oct 25 10:18:03 47064 -49773 A -0.5156 0.9988 35.6S 151.0W 59 5 00m07s
 ----- 14 -2007 Nov 04 18:58:18 46623 -49550 H -0.5126 1.0009 39.9S 77.1E 59 4 00m05s
 00026 15 -1989 Nov 16 03:39:33 46185 -49327 H -0.5096 1.0036 44.0S 54.1W 59 14 00m18s
 00069 16 -1971 Nov 26 12:22:23 45748 -49104 H -0.5060 1.0069 47.7S 175.3E 59 28 00m34s
 00112 17 -1953 Dec 07 21:03:10 45314 -48881 H -0.5050 1.0107 50.8S 46.4E 59 43 00m52s
 00155 18 -1935 Dec 18 05:41:01 44881 -48658 H2 -0.5070 1.0150 53.2S 80.5W 59 60 01m11s
 00199 19 -1917 Dec 29 14:13:35 44451 -48435 T -0.5141 1.0197 54.8S 154.9E 59 79 01m31s
 00243 20 -1898 Jan 08 22:40:58 44023 -48212 T -0.5261 1.0248 55.5S 32.1E 58 99 01m53s
 00288 21 -1880 Jan 20 07:01:48 43597 -47989 T -0.5444 1.0301 55.3S 88.9W 57 121 02m13s
 00334 22 -1862 Jan 30 15:14:50 43172 -47766 T -0.5698 1.0355 54.4S 151.5E 55 145 02m34s
 00380 23 -1844 Feb 10 23:20:42 42750 -47543 T -0.6022 1.0408 52.9S 33.0E 53 170 02m53s
 00426 24 -1826 Feb 21 07:18:40 42330 -47320 T -0.6416 1.0459 51.3S 84.2W 50 198 03m11s
 00471 25 -1808 Mar 03 15:09:43 41913 -47097 T -0.6876 1.0506 49.8S 159.7E 46 229 03m28s
 00518 26 -1790 Mar 14 22:53:21 41497 -46874 T -0.7405 1.0548 48.7S 45.1E 42 266 03m42s
 00563 27 -1772 Mar 25 06:31:35 41083 -46651 T -0.7985 1.0583 48.3S 68.3W 37 313 03m53s
 00608 28 -1754 Apr 05 14:04:42 40671 -46428 T -0.8613 1.0607 49.1S 179.8W 30 385 03m59s
 00653 29 -1736 Apr 15 21:32:48 40262 -46205 T -0.9288 1.0617 52.0S 72.2E 21 538 03m57s

00699 30 -1718 Apr 27 04:58:09 39854 -45982 T- -0.9988 1.0262 60.9S 13.9W 0

00744 31 -1700 May 07 12:21:06 39449 -45759 P -1.0709 0.8874 61.3S 135.2W 0

00788 32 -1682 May 18 19:44:10 39045 -45536 P -1.1432 0.7472 61.8S 103.4E 0

00830 33 -1664 May 29 03:06:18 38644 -45313 P -1.2163 0.6052 62.4S 18.0W 0

00871 34 -1646 Jun 09 10:31:31 38245 -45090 P -1.2869 0.4678 63.1S 140.3W 0

00912 35 -1628 Jun 19 17:59:12 37848 -44867 P -1.3552 0.3351 64.0S 96.5E 0

00953 36 -1610 Jul 01 01:31:29 37452 -44644 P -1.4198 0.2100 64.9S 28.1W 0

00994 37 -1592 Jul 11 09:08:18 37059 -44421 Pe -1.4808 0.0925 65.9S 154.2W 0

SAROS SERIES

2

Saros series 2 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

-----36 -2861 May 04 02:33:20 69788 -60119 Pb -1.5347 0.0202 71.2S 140.1E 0

----- -35 -2843 May 14 09:23:21 69251 -59896 P -1.4519 0.1692 70.7S 21.9E 0
 ----- -34 -2825 May 25 16:16:46 68716 -59673 P -1.3704 0.3170 70.0S 96.7W 0
 ----- -33 -2807 Jun 04 23:14:03 68183 -59450 P -1.2908 0.4623 69.2S 144.3E 0
 ----- -32 -2789 Jun 16 06:18:03 67653 -59227 P -1.2152 0.6008 68.3S 24.1E 0
 ----- -31 -2771 Jun 26 13:29:09 67124 -59004 P -1.1440 0.7316 67.3S 97.3W 0
 ----- -30 -2753 Jul 07 20:47:56 66598 -58781 P -1.0780 0.8531 66.3S 139.9E 0
 ----- -29 -2735 Jul 18 04:15:55 66073 -58558 P -1.0185 0.9626 65.3S 15.3E 0
 ----- -28 -2717 Jul 29 11:53:59 65551 -58335 T -0.9665 1.0080 50.8S 102.5W 14 111 00m40s
 ----- -27 -2699 Aug 08 19:42:20 65031 -58112 T -0.9219 1.0103 43.1S 136.2E 22 92 00m53s
 ----- -26 -2681 Aug 20 03:39:47 64513 -57889 T -0.8840 1.0116 39.0S 12.6E 28 84 01m00s
 ----- -25 -2663 Aug 30 11:47:56 63997 -57666 T -0.8540 1.0123 37.2S 113.8W 31 80 01m03s
 ----- -24 -2645 Sep 10 20:05:24 63483 -57443 T -0.8310 1.0128 37.1S 117.4E 34 78 01m04s
 ----- -23 -2627 Sep 21 04:31:40 62971 -57220 T -0.8145 1.0134 38.3S 13.7W 35 77 01m04s
 ----- -22 -2609 Oct 02 13:05:16 62461 -56997 T -0.8035 1.0140 40.6S 146.7W 36 79 01m05s
 ----- -21 -2591 Oct 12 21:45:28 61953 -56774 T -0.7973 1.0150 43.7S 78.5E 37 83 01m06s
 ----- -20 -2573 Oct 24 06:30:44 61447 -56551 T -0.7947 1.0162 47.5S 57.6W 37 90 01m09s
 ----- -19 -2555 Nov 03 15:17:58 60944 -56328 T -0.7935 1.0180 51.6S 166.0E 37 100 01m14s
 ----- -18 -2537 Nov 15 00:07:36 60442 -56105 T -0.7937 1.0202 56.1S 29.5E 37 112 01m21s
 ----- -17 -2519 Nov 25 08:55:52 59942 -55882 T -0.7929 1.0230 60.6S 105.6W 37 128 01m29s
 ----- -16 -2501 Dec 06 17:42:26 59445 -55659 T -0.7902 1.0264 65.0S 121.5E 37 146 01m40s
 ----- -15 -2483 Dec 17 02:23:43 58950 -55436 T -0.7830 1.0304 68.7S 6.6W 38 165 01m54s
 ----- -14 -2465 Dec 28 11:01:16 58456 -55213 T -0.7726 1.0348 71.6S 129.4W 39 185 02m10s
 ----- -13 -2446 Jan 07 19:31:37 57965 -54990 T -0.7562 1.0396 72.5S 114.3E 41 204 02m29s
 ----- -12 -2428 Jan 19 03:55:02 57476 -54767 T -0.7337 1.0448 71.1S 0.4E 42 221 02m50s
 ----- -11 -2410 Jan 29 12:10:05 56989 -54544 T -0.7042 1.0501 67.4S 115.2W 45 235 03m15s
 ----- -10 -2392 Feb 09 20:17:54 56504 -54321 T -0.6682 1.0555 62.0S 126.1E 48 247 03m43s
 ----- -09 -2374 Feb 20 04:17:39 56021 -54098 T -0.6254 1.0607 55.6S 6.1E 51 256 04m14s
 ----- -08 -2356 Mar 02 12:09:40 55540 -53875 T -0.5760 1.0657 48.4S 114.3W 55 262 04m47s

----- -07 -2338 Mar 13 19:54:57 55061 -53652 T -0.5205 1.0702 40.7S 125.8E 58 267 05m21s
 ----- -06 -2320 Mar 24 03:34:04 54584 -53429 T -0.4596 1.0741 32.7S 6.7E 62 270 05m53s
 ----- -05 -2302 Apr 04 11:07:07 54110 -53206 T -0.3933 1.0774 24.5S 111.4W 67 271 06m24s
 ----- -04 -2284 Apr 14 18:36:13 53637 -52983 T -0.3237 1.0799 16.2S 131.5E 71 272 06m50s
 ----- -03 -2266 Apr 26 02:01:36 53167 -52760 T -0.2507 1.0816 7.9S 15.3E 75 271 07m09s
 ----- -02 -2248 May 06 09:26:04 52698 -52537 T -0.1771 1.0823 0.2N 100.4W 80 269 07m20s
 ----- -01 -2230 May 17 16:47:47 52232 -52314 T -0.1011 1.0821 8.2N 145.0E 84 266 07m21s
 ----- 00 -2212 May 28 00:11:44 51767 -52091 Tm -0.0272 1.0809 15.6N 30.4E 89 261 07m13s
 ----- 01 -2194 Jun 08 07:35:59 51305 -51868 T 0.0465 1.0789 22.6N 83.5W 87 255 06m56s
 ----- 02 -2176 Jun 18 15:04:32 50845 -51645 T 0.1161 1.0761 28.8N 162.5E 83 248 06m33s
 ----- 03 -2158 Jun 29 22:35:05 50387 -51422 T 0.1837 1.0724 34.1N 49.0E 79 239 06m04s
 ----- 04 -2140 Jul 10 06:12:47 49931 -51199 T 0.2451 1.0681 38.3N 65.1W 76 229 05m33s
 ----- 05 -2122 Jul 21 13:55:13 49477 -50976 T 0.3023 1.0632 41.2N 179.5W 72 218 05m01s
 ----- 06 -2104 Jul 31 21:45:23 49025 -50753 T 0.3527 1.0580 42.6N 64.7E 69 204 04m30s
 ----- 07 -2086 Aug 12 05:42:06 48575 -50530 T 0.3973 1.0524 42.7N 52.8W 66 189 04m01s
 ----- 08 -2068 Aug 22 13:48:09 48128 -50307 T 0.4336 1.0468 41.4N 173.2W 64 172 03m34s
 ----- 09 -2050 Sep 02 22:01:13 47682 -50084 T 0.4639 1.0412 39.2N 63.9E 62 155 03m08s
 ----- 10 -2032 Sep 13 06:21:44 47238 -49861 T 0.4877 1.0357 36.2N 62.0W 61 136 02m45s
 ----- 11 -2014 Sep 24 14:49:17 46797 -49638 T 0.5052 1.0305 32.6N 169.5E 59 118 02m24s
 00010 12 -1996 Oct 04 23:23:37 46358 -49415 T 0.5166 1.0257 28.8N 38.6E 59 101 02m04s
 00053 13 -1978 Oct 16 08:02:30 45920 -49192 T 0.5237 1.0214 24.8N 94.0W 58 84 01m47s
 00095 14 -1960 Oct 26 16:45:10 45485 -48969 T 0.5271 1.0175 21.0N 132.2E 58 70 01m31s
 00138 15 -1942 Nov 07 01:29:55 45052 -48746 H3 0.5284 1.0143 17.4N 2.2W 58 57 01m17s
 00181 16 -1924 Nov 17 10:15:36 44620 -48523 H 0.5283 1.0116 14.2N 137.0W 58 47 01m06s
 00225 17 -1906 Nov 28 18:58:47 44191 -48300 H 0.5296 1.0095 11.6N 89.1E 58 38 00m56s
 00269 18 -1888 Dec 09 03:39:58 43764 -48077 H 0.5320 1.0079 9.8N 44.3W 58 32 00m48s
 00315 19 -1870 Dec 20 12:15:47 43340 -47854 H 0.5379 1.0066 9.0N 176.3W 57 27 00m42s
 00362 20 -1852 Dec 30 20:45:47 42917 -47631 H 0.5483 1.0059 9.2N 53.2E 57 24 00m38s

00408	21	-1833	Jan 11	05:07:17	42496 -47408	H	0.5652	1.0052	10.7N	75.3W	56	22	00m34s
00453	22	-1815	Jan 21	13:21:20	42077 -47185	H	0.5875	1.0048	13.2N	157.8E	54	21	00m31s
00499	23	-1797	Feb 01	21:25:34	41661 -46962	H	0.6170	1.0043	17.0N	32.9E	52	19	00m28s
00545	24	-1779	Feb 12	05:19:31	41246 -46739	H	0.6544	1.0038	22.0N	90.0W	49	17	00m24s
00590	25	-1761	Feb 23	13:03:27	40833 -46516	H	0.6992	1.0028	28.1N	149.0E	45	14	00m17s
00635	26	-1743	Mar 05	20:37:21	40423 -46293	H	0.7516	1.0016	35.4N	29.4E	41	8	00m09s
00681	27	-1725	Mar 17	04:02:01	40015 -46070	A	0.8105	0.9997	43.9N	89.3W	36	2	00m01s
00727	28	-1707	Mar 27	11:16:25	39608 -45847	A	0.8766	0.9970	53.7N	151.4E	28	22	00m14s
00771	29	-1689	Apr 07	18:23:32	39204 -45624	A	0.9476	0.9929	65.1N	24.3E	18	80	00m30s
00815	30	-1671	Apr 18	01:22:18	38802 -45401	P	1.0243	0.9436	71.6N	143.4W	0		
00855	31	-1653	Apr 29	08:15:17	38402 -45178	P	1.1044	0.7984	71.2N	97.9E	0		
00896	32	-1635	May 09	15:02:53	38004 -44955	P	1.1875	0.6484	70.6N	18.9W	0		
00937	33	-1617	May 20	21:47:47	37608 -44732	P	1.2714	0.4977	69.8N	134.6W	0		
00978	34	-1599	May 31	04:30:55	37214 -44509	P	1.3554	0.3481	69.0N	110.8E	0		
01019	35	-1581	Jun 11	11:13:09	36822 -44286	P	1.4387	0.2008	68.0N	3.0W	0		
01060	36	-1563	Jun 21	17:57:26	36433 -44063	Pe	1.5190	0.0603	67.0N	116.8W	0		

SAROS SERIES

3

Saros series 3 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

----	-37	-2814	Apr 24	23:14:58	68393	-59538	Pb	1.4794	0.0951	60.7N	19.5E	0	
----	-36	-2796	May 05	06:35:13	67862	-59315	P	1.4091	0.2316	60.9N	101.6W	0	
----	-35	-2778	May 16	13:54:01	67333	-59092	P	1.3379	0.3696	61.2N	137.6E	0	
----	-34	-2760	May 26	21:13:27	66805	-58869	P	1.2679	0.5049	61.7N	16.5E	0	
----	-33	-2742	Jun 07	04:34:31	66280	-58646	P	1.1994	0.6363	62.3N	105.0W	0	
----	-32	-2724	Jun 17	11:57:44	65757	-58423	P	1.1333	0.7622	63.0N	132.7E	0	
----	-31	-2706	Jun 28	19:25:41	65236	-58200	P	1.0717	0.8780	63.8N	9.0E	0	
----	-30	-2688	Jul 09	02:58:29	64717	-57977	P	1.0150	0.9835	64.8N	116.2W	0	
----	-29	-2670	Jul 20	10:37:48	64200	-57754	T	0.9641	1.0329	80.1N	129.6E	15	439 01m42s
----	-28	-2652	Jul 30	18:23:30	63685	-57531	T	0.9191	1.0293	89.2N	65.6W	23	258 01m38s
----	-27	-2634	Aug 11	02:17:25	63172	-57308	T	0.8815	1.0246	82.3N	85.1E	28	180 01m28s
----	-26	-2616	Aug 21	10:18:30	62662	-57085	T	0.8508	1.0194	75.4N	40.5W	31	127 01m13s
----	-25	-2598	Sep 01	18:27:03	62153	-56862	T	0.8270	1.0140	69.1N	166.9W	34	86 00m56s
----	-24	-2580	Sep 12	02:42:55	61646	-56639	H	0.8099	1.0085	63.3N	65.0E	36	50 00m36s
----	-23	-2562	Sep 23	11:06:06	61142	-56416	H	0.7995	1.0033	57.9N	65.1W	37	19 00m14s
----	-22	-2544	Oct 03	19:34:44	60640	-56193	A	0.7945	0.9983	53.1N	163.3E	37	10 00m08s
----	-21	-2526	Oct 15	04:07:40	60139	-55970	A	0.7938	0.9937	48.7N	30.4E	37	36 00m31s
----	-20	-2508	Oct 25	12:43:30	59641	-55747	A	0.7965	0.9897	44.9N	103.3W	37	60 00m53s
----	-19	-2490	Nov 05	21:21:21	59145	-55524	A	0.8015	0.9861	41.6N	122.4E	36	82 01m15s
----	-18	-2472	Nov 16	05:57:32	58651	-55301	A	0.8060	0.9832	38.7N	11.7W	36	100 01m34s
----	-17	-2454	Nov 27	14:32:27	58159	-55078	A	0.8102	0.9808	36.3N	145.6W	36	116 01m52s
----	-16	-2436	Dec 07	23:02:15	57669	-54855	A	0.8108	0.9792	33.9N	81.6E	36	126 02m06s

-----15 -2418 Dec 19 07:27:38 57181 -54632 A 0.8088 0.9780 31.9N 50.2W 36 133 02m17s
 -----14 -2400 Dec 29 15:43:49 56695 -54409 A 0.7998 0.9775 29.8N 179.5W 37 134 02m24s
 -----13 -2381 Jan 09 23:53:26 56211 -54186 A 0.7862 0.9774 27.8N 53.0E 38 131 02m27s
 -----12 -2363 Jan 20 07:52:07 55729 -53963 A 0.7641 0.9776 25.8N 71.4W 40 123 02m26s
 -----11 -2345 Jan 31 15:41:33 55250 -53740 A 0.7353 0.9781 23.9N 167.0E 42 114 02m23s
 -----10 -2327 Feb 10 23:18:58 54772 -53517 A 0.6973 0.9787 22.2N 49.0E 46 104 02m17s
 -----09 -2309 Feb 22 06:47:23 54297 -53294 A 0.6526 0.9792 20.9N 66.2W 49 96 02m12s
 -----08 -2291 Mar 04 14:04:27 53823 -53071 A 0.5992 0.9796 19.8N 178.0W 53 89 02m07s
 -----07 -2273 Mar 15 21:11:34 53352 -52848 A 0.5384 0.9798 19.2N 73.2E 57 84 02m03s
 -----06 -2255 Mar 26 04:09:07 52883 -52625 A 0.4706 0.9796 18.9N 32.8W 62 81 02m03s
 -----05 -2237 Apr 06 10:58:45 52416 -52402 A 0.3972 0.9790 18.8N 136.3W 66 80 02m05s
 -----04 -2219 Apr 16 17:41:09 51950 -52179 A 0.3187 0.9780 18.9N 122.4E 71 82 02m12s
 -----03 -2201 Apr 28 00:17:33 51487 -51956 A 0.2359 0.9763 18.9N 22.8E 76 87 02m24s
 -----02 -2183 May 08 06:50:02 51026 -51733 A 0.1509 0.9742 18.6N 75.5W 81 93 02m41s
 -----01 -2165 May 19 13:20:15 50568 -51510 Am 0.0650 0.9714 17.9N 173.3W 86 103 03m05s
 -----00 -2147 May 29 19:48:35 50111 -51287 A -0.0216 0.9682 16.6N 89.4E 89 114 03m35s
 -----01 -2129 Jun 10 02:18:25 49656 -51064 A -0.1062 0.9645 14.6N 8.5W 84 129 04m13s
 -----02 -2111 Jun 20 08:49:48 49203 -50841 A -0.1886 0.9604 11.8N 107.2W 79 146 04m58s
 -----03 -2093 Jul 01 15:26:26 48753 -50618 A -0.2660 0.9559 8.4N 152.2E 75 167 05m48s
 -----04 -2075 Jul 11 22:06:33 48304 -50395 A -0.3398 0.9511 4.2N 50.2E 70 190 06m41s
 -----05 -2057 Jul 23 04:55:04 47858 -50172 A -0.4058 0.9462 0.4S 54.5W 66 217 07m31s
 -----06 -2039 Aug 02 11:49:55 47413 -49949 A -0.4658 0.9412 5.5S 161.4W 62 246 08m14s
 -----07 -2021 Aug 13 18:54:33 46971 -49726 A -0.5172 0.9364 10.9S 88.8E 59 276 08m46s
 -----08 -2003 Aug 24 02:06:36 46531 -49503 A -0.5620 0.9316 16.4S 23.3W 56 308 09m09s
 00035 09 -1985 Sep 04 09:29:03 46093 -49280 A -0.5977 0.9272 21.9S 138.3W 53 338 09m22s
 00078 10 -1967 Sep 14 16:59:19 45656 -49057 A -0.6263 0.9232 27.4S 104.6E 51 368 09m27s
 00121 11 -1949 Sep 26 00:37:49 45222 -48834 A -0.6477 0.9197 32.8S 14.4W 49 394 09m25s
 00164 12 -1931 Oct 06 08:23:27 44790 -48611 A -0.6630 0.9167 38.0S 135.1W 48 418 09m19s

00207 13 -1913 Oct 17 16:15:51 44361 -48388 A -0.6726 0.9145 43.1S 103.1E 47 436 09m09s
 00251 14 -1895 Oct 28 00:12:42 43933 -48165 A -0.6781 0.9130 48.0S 19.1W 47 449 08m57s
 00296 15 -1877 Nov 08 08:12:04 43507 -47942 A -0.6816 0.9122 52.8S 141.0W 47 457 08m43s
 00343 16 -1859 Nov 18 16:12:53 43083 -47719 A -0.6838 0.9121 57.3S 98.3E 47 460 08m27s
 00389 17 -1841 Nov 30 00:13:30 42662 -47496 A -0.6864 0.9127 61.4S 20.6W 46 459 08m08s
 00435 18 -1823 Dec 10 08:10:48 42242 -47273 A -0.6918 0.9140 65.0S 136.2W 46 456 07m48s
 00481 19 -1805 Dec 21 16:04:21 41825 -47050 A -0.7005 0.9159 67.8S 111.9E 45 451 07m26s
 00528 20 -1787 Dec 31 23:51:46 41409 -46827 A -0.7145 0.9183 69.5S 4.2E 44 446 07m03s
 00573 21 -1768 Jan 12 07:33:02 40996 -46604 A -0.7337 0.9212 69.8S 100.6W 43 441 06m38s
 00618 22 -1750 Jan 22 15:05:02 40585 -46381 A -0.7609 0.9243 69.1S 156.6E 40 440 06m12s
 00663 23 -1732 Feb 02 22:29:32 40176 -46158 A -0.7944 0.9278 67.6S 54.0E 37 446 05m46s
 00710 24 -1714 Feb 13 05:44:32 39768 -45935 A -0.8361 0.9311 65.8S 47.3W 33 468 05m21s
 00754 25 -1696 Feb 24 12:50:43 39363 -45712 A -0.8850 0.9344 64.1S 146.6W 27 522 04m57s
 00798 26 -1678 Mar 06 19:47:59 38961 -45489 A -0.9415 0.9369 63.1S 119.2E 19 696 04m34s
 00839 27 -1660 Mar 17 02:38:17 38560 -45266 A- -1.0038 0.9574 60.7S 47.7E 0
 00880 28 -1642 Mar 28 09:22:04 38161 -45043 P -1.0719 0.8423 60.5S 63.6W 0
 00921 29 -1624 Apr 07 15:58:59 37764 -44820 P -1.1456 0.7162 60.5S 173.1W 0
 00962 30 -1606 Apr 18 22:32:52 37369 -44597 P -1.2220 0.5843 60.7S 78.0E 0
 01003 31 -1588 Apr 29 05:03:27 36977 -44374 P -1.3012 0.4465 61.0S 30.0W 0
 01044 32 -1570 May 10 11:34:14 36586 -44151 P -1.3807 0.3072 61.4S 138.2W 0
 01085 33 -1552 May 20 18:04:09 36198 -43928 P -1.4612 0.1652 62.0S 113.6E 0
 01125 34 -1534 Jun 01 00:38:21 35811 -43705 Pe -1.5387 0.0279 62.7S 4.3E 0

SAROS SERIES

4

Saros series 4 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-34	-2731 May 06	21:27:10	65963	-58511	Pb	-1.5158	0.0756	71.0S	164.6W	0		
-----	-33	-2713 May 18	03:46:02	65441	-58288	P	-1.4334	0.2186	70.5S	85.2E	0		
-----	-32	-2695 May 28	10:03:43	64921	-58065	P	-1.3498	0.3631	69.8S	24.2W	0		
-----	-31	-2677 Jun 08	16:25:05	64404	-57842	P	-1.2689	0.5023	68.9S	134.0W	0		
-----	-30	-2659 Jun 18	22:49:33	63888	-57619	P	-1.1901	0.6370	68.0S	116.0E	0		
-----	-29	-2641 Jun 30	05:19:08	63374	-57396	P	-1.1151	0.7645	67.0S	5.3E	0		
-----	-28	-2623 Jul 10	11:55:49	62863	-57173	P	-1.0454	0.8819	65.9S	106.7W	0		
-----	-27	-2605 Jul 21	18:40:40	62353	-56950	As	-0.9820	0.9268	55.2S	144.9E	10	-	07m13s
-----	-26	-2587 Aug 01	01:34:39	61846	-56727	A	-0.9257	0.9264	43.5S	37.7E	22	732	08m05s
-----	-25	-2569 Aug 12	08:37:06	61341	-56504	A	-0.8759	0.9247	37.5S	71.9W	29	580	08m36s
-----	-24	-2551 Aug 22	15:50:29	60838	-56281	A	-0.8346	0.9226	34.3S	175.8E	33	518	08m53s
-----	-23	-2533 Sep 02	23:12:57	60336	-56058	A	-0.8002	0.9205	33.0S	61.4E	37	487	08m58s
-----	-22	-2515 Sep 13	06:45:12	59837	-55835	A	-0.7738	0.9186	33.2S	55.5W	39	471	08m56s
-----	-21	-2497 Sep 24	14:25:38	59340	-55612	A	-0.7538	0.9170	34.7S	174.5W	41	464	08m48s

----- -20 -2479 Oct 04 22:14:47 58845 -55389 A -0.7408 0.9157 37.3S 64.3E 42 462 08m36s
 ----- -19 -2461 Oct 16 06:09:29 58352 -55166 A -0.7317 0.9151 40.6S 58.3W 43 461 08m21s
 ----- -18 -2443 Oct 26 14:08:48 57862 -54943 A -0.7261 0.9150 44.5S 178.1E 43 459 08m04s
 ----- -17 -2425 Nov 06 22:10:57 57373 -54720 A -0.7224 0.9156 48.7S 54.2E 43 455 07m46s
 ----- -16 -2407 Nov 17 06:15:07 56886 -54497 A -0.7204 0.9168 53.2S 69.5W 44 449 07m26s
 ----- -15 -2389 Nov 28 14:17:14 56402 -54274 A -0.7159 0.9189 57.4S 168.8E 44 437 07m05s
 ----- -14 -2371 Dec 08 22:17:26 55919 -54051 A -0.7094 0.9216 61.2S 49.5E 45 419 06m45s
 ----- -13 -2353 Dec 20 06:12:28 55439 -53828 A -0.6981 0.9251 64.1S 65.7W 45 394 06m24s
 ----- -12 -2335 Dec 30 14:03:41 54960 -53605 A -0.6829 0.9292 65.7S 177.1W 47 364 06m04s
 ----- -11 -2316 Jan 10 21:45:48 54484 -53382 A -0.6598 0.9340 65.2S 75.2E 48 329 05m44s
 ----- -10 -2298 Jan 21 05:22:17 54010 -53159 A -0.6315 0.9392 62.8S 32.2W 51 292 05m24s
 ----- -09 -2280 Feb 01 12:48:48 53538 -52936 A -0.5943 0.9448 58.4S 139.8W 53 254 05m03s
 ----- -08 -2262 Feb 11 20:08:54 53068 -52713 A -0.5510 0.9508 52.8S 111.4E 56 217 04m40s
 ----- -07 -2244 Feb 23 03:18:47 52600 -52490 A -0.4986 0.9568 46.0S 2.9E 60 181 04m16s
 ----- -06 -2226 Mar 05 10:23:28 52134 -52267 A -0.4410 0.9630 38.6S 105.9W 64 149 03m49s
 ----- -05 -2208 Mar 15 17:19:40 51670 -52044 A -0.3756 0.9690 30.6S 146.4E 68 120 03m19s
 ----- -04 -2190 Mar 27 00:10:56 51208 -51821 A -0.3053 0.9748 22.3S 39.4E 72 94 02m47s
 ----- -03 -2172 Apr 06 06:56:40 50748 -51598 A -0.2292 0.9803 13.8S 66.6W 77 72 02m14s
 ----- -02 -2154 Apr 17 13:40:40 50291 -51375 A -0.1507 0.9854 5.2S 172.3W 81 52 01m40s
 ----- -01 -2136 Apr 27 20:22:41 49835 -51152 A -0.0694 0.9900 3.5N 82.6E 86 35 01m09s
 ----- 00 -2118 May 09 03:04:27 49382 -50929 A 0.0130 0.9940 12.0N 22.1W 89 21 00m40s
 ----- 01 -2100 May 19 09:48:24 48930 -50706 A 0.0950 0.9974 20.2N 126.9W 84 9 00m17s
 ----- 02 -2082 May 30 16:35:25 48481 -50483 Hm 0.1758 1.0002 28.0N 128.3E 80 1 00m02s
 ----- 03 -2064 Jun 09 23:26:42 48034 -50260 H 0.2540 1.0025 35.3N 23.5E 75 9 00m15s
 ----- 04 -2046 Jun 21 06:23:52 47588 -50037 H 0.3283 1.0041 41.8N 81.5W 71 15 00m23s
 ----- 05 -2028 Jul 01 13:28:35 47145 -49814 H 0.3975 1.0051 47.2N 173.2E 66 19 00m28s
 ----- 06 -2010 Jul 12 20:41:58 46704 -49591 H 0.4606 1.0057 51.4N 67.4E 62 22 00m29s
 00019 07 -1992 Jul 23 04:03:17 46265 -49368 H 0.5182 1.0059 54.0N 39.0W 59 24 00m29s

00062	08	-1974	Aug 03	11:35:27	45828	-49145	H	0.5677	1.0057	55.0N	147.6W	55	24	00m27s
00105	09	-1956	Aug 13	19:17:10	45393	-48922	H	0.6100	1.0054	54.4N	100.8E	52	23	00m25s
00148	10	-1938	Aug 25	03:09:40	44961	-48699	H	0.6444	1.0050	52.6N	15.0W	50	22	00m23s
00191	11	-1920	Sep 04	11:10:54	44530	-48476	H	0.6724	1.0046	49.9N	134.7W	48	21	00m21s
00235	12	-1902	Sep 15	19:22:56	44101	-48253	H	0.6925	1.0044	46.6N	101.3E	46	21	00m20s
00279	13	-1884	Sep 26	03:43:13	43675	-48030	H	0.7067	1.0045	43.1N	26.0W	45	22	00m21s
00325	14	-1866	Oct 07	12:11:37	43250	-47807	H	0.7148	1.0050	39.4N	156.4W	44	24	00m24s
00371	15	-1848	Oct 17	20:46:35	42828	-47584	H	0.7184	1.0059	35.7N	71.0E	44	29	00m29s
00417	16	-1830	Oct 29	05:27:09	42408	-47361	H	0.7181	1.0074	32.1N	63.4W	44	36	00m38s
00462	17	-1812	Nov 08	14:11:00	41989	-47138	H	0.7160	1.0094	28.8N	161.2E	44	45	00m49s
00509	18	-1794	Nov 19	22:56:01	41573	-46915	H2	0.7137	1.0120	26.0N	25.7E	44	58	01m05s
00555	19	-1776	Nov 30	07:41:49	41159	-46692	T	0.7115	1.0151	23.7N	110.0W	44	73	01m24s
00600	20	-1758	Dec 11	16:25:49	40747	-46469	T	0.7109	1.0187	22.2N	114.8E	45	90	01m47s
00645	21	-1740	Dec 22	01:06:10	40337	-46246	T	0.7143	1.0228	21.7N	19.3W	44	110	02m11s
00691	22	-1721	Jan 02	09:41:25	39929	-46023	T	0.7224	1.0271	22.3N	152.2W	44	133	02m37s
00737	23	-1703	Jan 12	18:10:50	39523	-45800	T	0.7358	1.0318	23.9N	76.3E	42	158	03m01s
00781	24	-1685	Jan 24	02:33:47	39119	-45577	T	0.7549	1.0365	26.8N	54.0W	41	187	03m23s
00823	25	-1667	Feb 03	10:48:21	38718	-45354	T	0.7813	1.0412	30.8N	177.4E	38	221	03m40s
00864	26	-1649	Feb 14	18:55:44	38318	-45131	T	0.8141	1.0456	36.1N	49.8E	35	261	03m51s
00905	27	-1631	Feb 25	02:54:56	37920	-44908	T	0.8541	1.0495	42.8N	77.0W	31	315	03m54s
00946	28	-1613	Mar 08	10:47:14	37525	-44685	T	0.9003	1.0528	50.8N	155.7E	25	401	03m49s
00987	29	-1595	Mar 18	18:31:52	37132	-44462	T	0.9531	1.0547	60.8N	24.3E	17	607	03m33s
01028	30	-1577	Mar 30	02:11:02	36740	-44239	P	1.0109	0.9998	71.6N	140.3W	0		
01069	31	-1559	Apr 09	09:44:40	36351	-44016	P	1.0736	0.8801	71.6N	90.7E	0		
01109	32	-1541	Apr 20	17:13:51	35964	-43793	P	1.1403	0.7517	71.4N	37.0W	0		
01149	33	-1523	May 01	00:40:11	35579	-43570	P	1.2096	0.6174	70.9N	163.8W	0		
01189	34	-1505	May 12	08:04:36	35196	-43347	P	1.2809	0.4789	70.3N	70.4E	0		
01229	35	-1487	May 22	15:29:11	34815	-43124	P	1.3520	0.3405	69.5N	54.9W	0		

01269 36 -1469 Jun 02 22:52:59 34436 -42901 P 1.4237 0.2010 68.6N 179.4W 0

01309 37 -1451 Jun 13 06:19:54 34059 -42678 Pe 1.4929 0.0667 67.7N 55.8E 0

SAROS SERIES

5

Saros series 5 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-36	-2720	Apr 04	23:46:28	65647	-58376	Pb	1.5364	0.0183	60.5N	15.2E	0	
-----	-35	-2702	Apr 16	06:41:48	65126	-58153	P	1.4572	0.1600	60.5N	99.5W	0	
-----	-34	-2684	Apr 26	13:35:05	64608	-57930	P	1.3750	0.3089	60.6N	146.3E	0	
-----	-33	-2666	May 07	20:29:56	64091	-57707	P	1.2926	0.4595	60.8N	31.6E	0	
-----	-32	-2648	May 18	03:25:58	63577	-57484	P	1.2100	0.6115	61.2N	83.4W	0	
-----	-31	-2630	May 29	10:26:50	63065	-57261	P	1.1296	0.7603	61.7N	160.3E	0	
-----	-30	-2612	Jun 08	17:30:49	62554	-57038	P	1.0507	0.9070	62.4N	43.0E	0	
-----	-29	-2594	Jun 20	00:42:44	62046	-56815	T	0.9769	1.0164	71.5N	55.2W	12 281 00m52s	

----- -28 -2576 Jun 30 08:00:57 61540 -56592 T 0.9076 1.0212 79.0N 127.3W 24 175 01m13s
----- -27 -2558 Jul 11 15:27:53 61036 -56369 T 0.8446 1.0240 79.6N 163.3E 32 154 01m28s
----- -26 -2540 Jul 21 23:03:07 60534 -56146 T 0.7875 1.0256 75.9N 76.6E 38 142 01m38s
----- -25 -2522 Aug 02 06:48:25 60034 -55923 T 0.7380 1.0266 70.7N 27.9W 42 135 01m47s
----- -24 -2504 Aug 12 14:43:22 59536 -55700 T 0.6961 1.0270 64.9N 142.1W 46 128 01m53s
----- -23 -2486 Aug 23 22:47:11 59041 -55477 T 0.6610 1.0272 59.1N 98.0E 48 123 01m58s
----- -22 -2468 Sep 03 07:01:16 58547 -55254 T 0.6341 1.0271 53.3N 26.4W 50 119 02m02s
----- -21 -2450 Sep 14 15:23:58 58055 -55031 T 0.6139 1.0270 47.7N 154.1W 52 116 02m06s
----- -20 -2432 Sep 24 23:55:26 57566 -54808 T 0.6005 1.0270 42.3N 75.4E 53 114 02m10s
----- -19 -2414 Oct 06 08:32:55 57078 -54585 T 0.5918 1.0273 37.2N 57.2W 53 114 02m15s
----- -18 -2396 Oct 16 17:17:12 56593 -54362 T 0.5883 1.0278 32.5N 168.4E 54 116 02m22s
----- -17 -2378 Oct 28 02:04:56 56109 -54139 T 0.5873 1.0287 28.2N 32.8E 54 119 02m31s
----- -16 -2360 Nov 07 10:55:34 55628 -53916 T 0.5883 1.0302 24.3N 103.5W 54 125 02m44s
----- -15 -2342 Nov 18 19:46:38 55149 -53693 T 0.5892 1.0321 20.8N 120.0E 54 133 02m59s
----- -14 -2324 Nov 29 04:37:34 54672 -53470 T 0.5894 1.0346 17.8N 16.5W 54 144 03m16s
----- -13 -2306 Dec 10 13:24:51 54197 -53247 T 0.5865 1.0376 15.1N 152.1W 54 156 03m37s
----- -12 -2288 Dec 20 22:08:25 53724 -53024 T 0.5802 1.0410 12.9N 73.4E 54 169 03m59s
----- -11 -2269 Jan 01 06:46:00 53253 -52801 T 0.5687 1.0449 11.0N 59.6W 55 182 04m21s
----- -10 -2251 Jan 11 15:18:09 52784 -52578 T 0.5522 1.0491 9.4N 169.0E 56 195 04m43s
----- -09 -2233 Jan 22 23:40:58 52317 -52355 T 0.5278 1.0536 8.2N 40.1E 58 208 05m03s
----- -08 -2215 Feb 02 07:57:16 51853 -52132 T 0.4978 1.0581 7.3N 86.9W 60 219 05m20s
----- -07 -2197 Feb 13 16:04:00 51390 -51909 T 0.4597 1.0625 6.8N 148.8E 63 229 05m34s
----- -06 -2179 Feb 24 00:04:31 50930 -51686 T 0.4161 1.0668 6.7N 26.4E 65 238 05m46s
----- -05 -2161 Mar 07 07:54:50 50471 -51463 T 0.3640 1.0707 6.8N 93.1W 69 245 05m55s
----- -04 -2143 Mar 17 15:40:07 50015 -51240 T 0.3072 1.0741 7.3N 148.8E 72 251 06m03s
----- -03 -2125 Mar 28 23:17:08 49560 -51017 T 0.2436 1.0769 7.9N 33.1E 76 256 06m10s
----- -02 -2107 Apr 08 06:50:25 49108 -50794 T 0.1766 1.0790 8.7N 81.4W 80 259 06m17s
----- -01 -2089 Apr 19 14:17:26 48658 -50571 T 0.1042 1.0803 9.3N 165.8E 84 260 06m23s

----- 00 -2071 Apr 29 21:43:15 48210 -50348 Tm 0.0309 1.0807 9.7N 53.5E 88 260 06m30s
 ----- 01 -2053 May 11 05:05:51 47764 -50125 T -0.0450 1.0802 9.7N 58.0W 87 259 06m35s
 ----- 02 -2035 May 21 12:28:11 47320 -49902 T -0.1211 1.0788 9.2N 169.4W 83 256 06m39s
 ----- 03 -2017 Jun 01 19:50:19 46878 -49679 T -0.1968 1.0764 8.0N 79.1E 79 252 06m40s
 00001 04 -1999 Jun 12 03:14:51 46438 -49456 T -0.2701 1.0733 6.0N 33.3W 74 247 06m37s
 00044 05 -1981 Jun 23 10:42:06 46000 -49233 T -0.3407 1.0693 3.3N 146.8W 70 240 06m28s
 00087 06 -1963 Jul 03 18:12:59 45565 -49010 T -0.4077 1.0646 0.1S 98.3E 66 231 06m12s
 00130 07 -1945 Jul 15 01:49:25 45131 -48787 T -0.4692 1.0593 4.1S 18.5W 62 221 05m48s
 00173 08 -1927 Jul 25 09:31:57 44700 -48564 T -0.5249 1.0535 8.6S 137.3W 58 208 05m16s
 00217 09 -1909 Aug 05 17:20:50 44270 -48341 T -0.5746 1.0475 13.5S 101.7E 55 193 04m38s
 00261 10 -1891 Aug 16 01:16:58 43843 -48118 T -0.6177 1.0412 18.6S 21.6W 52 175 03m57s
 00306 11 -1873 Aug 27 09:20:55 43418 -47895 T -0.6537 1.0348 23.9S 147.1W 49 154 03m15s
 00353 12 -1855 Sep 06 17:32:50 42994 -47672 T -0.6822 1.0286 29.2S 85.1E 47 132 02m35s
 00399 13 -1837 Sep 18 01:51:07 42573 -47449 T -0.7050 1.0226 34.4S 44.4W 45 108 01m58s

 00444 14 -1819 Sep 28 10:17:02 42154 -47226 T -0.7208 1.0171 39.5S 175.6W 44 84 01m26s
 00490 15 -1801 Oct 09 18:49:02 41737 -47003 H3 -0.7313 1.0119 44.5S 52.0E 43 60 00m58s
 00537 16 -1783 Oct 20 03:26:05 41322 -46780 H -0.7370 1.0075 49.4S 81.1W 42 38 00m35s
 00582 17 -1765 Oct 31 12:05:53 40909 -46557 H -0.7400 1.0034 54.1S 146.0E 42 18 00m16s
 00627 18 -1747 Nov 10 20:47:50 40498 -46334 H -0.7406 1.0001 58.7S 13.8E 42 1 00m00s
 00673 19 -1729 Nov 22 05:30:00 40090 -46111 A -0.7405 0.9973 63.0S 116.5W 42 14 00m12s
 00720 20 -1711 Dec 02 14:09:37 39683 -45888 A -0.7421 0.9951 67.0S 116.2E 42 26 00m21s
 00764 21 -1693 Dec 13 22:46:18 39278 -45665 A -0.7455 0.9933 70.3S 6.8W 41 36 00m28s
 00808 22 -1675 Dec 24 07:17:15 38876 -45442 A -0.7531 0.9920 72.6S 124.5W 41 43 00m34s
 00848 23 -1656 Jan 04 15:41:43 38475 -45219 A -0.7653 0.9909 73.4S 122.3E 40 50 00m37s
 00889 24 -1638 Jan 14 23:57:02 38077 -44996 A -0.7844 0.9901 72.8S 11.7E 38 56 00m41s
 00930 25 -1620 Jan 26 08:04:19 37681 -44773 A -0.8094 0.9893 71.1S 99.3W 36 64 00m43s
 00971 26 -1602 Feb 05 16:01:25 37286 -44550 A -0.8424 0.9884 68.8S 149.9E 32 76 00m47s

01012	27	-1584	Feb 16	23:47:55	36894	-44327	A	-0.8833	0.9871	66.6S	40.7E	28	97	00m51s
01053	28	-1566	Feb 27	07:24:03	36504	-44104	A	-0.9317	0.9851	64.7S	64.6W	21	145	00m57s
01094	29	-1548	Mar 09	14:50:24	36116	-43881	A	-0.9874	0.9813	62.9S	156.9W	8	462	01m08s
01134	30	-1530	Mar 20	22:07:07	35730	-43658	P	-1.0501	0.8949	60.6S	100.3E	0		
01173	31	-1512	Mar 31	05:13:52	35346	-43435	P	-1.1200	0.7695	60.5S	16.7W	0		
01213	32	-1494	Apr 11	12:13:12	34965	-43212	P	-1.1948	0.6354	60.6S	131.8W	0		
01253	33	-1476	Apr 21	19:05:07	34585	-42989	P	-1.2741	0.4936	60.8S	114.9E	0		
01293	34	-1458	May 03	01:51:20	34207	-42766	P	-1.3569	0.3463	61.1S	3.0E	0		
01334	35	-1440	May 13	08:32:40	33832	-42543	P	-1.4422	0.1952	61.6S	107.8W	0		
01375	36	-1422	May 24	15:11:38	33458	-42320	Pe	-1.5278	0.0446	62.2S	141.8E	0		

SAROS SERIES

6

Saros series 6 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
											°	km		
ECLIPSE														

----- -37 -2673 Mar 27 20:31:11 64295 -57795 Pb -1.4782 0.0985 71.1S 107.1W 0
 ----- -36 -2655 Apr 07 03:58:32 63780 -57572 P -1.4150 0.2203 71.4S 125.2E 0
 ----- -35 -2637 Apr 18 11:22:10 63266 -57349 P -1.3490 0.3477 71.4S 1.7W 0
 ----- -34 -2619 Apr 28 18:41:50 62755 -57126 P -1.2800 0.4808 71.2S 127.6W 0
 ----- -33 -2601 May 10 01:59:13 62246 -56903 P -1.2094 0.6165 70.8S 107.4E 0
 ----- -32 -2583 May 20 09:15:36 61739 -56680 P -1.1384 0.7524 70.2S 16.9W 0
 ----- -31 -2565 May 31 16:32:39 61235 -56457 P -1.0682 0.8857 69.4S 140.9W 0
 ----- -30 -2547 Jun 10 23:51:42 60732 -56234 T- -1.0003 1.0134 68.6S 95.1E 0
 ----- -29 -2529 Jun 22 07:12:42 60231 -56011 T -0.9345 1.0405 47.4S 34.1W 20 386 03m15s
 ----- -28 -2511 Jul 02 14:38:50 59732 -55788 T -0.8736 1.0376 37.8S 153.3W 29 261 03m18s
 ----- -27 -2493 Jul 13 22:09:25 59236 -55565 T -0.8168 1.0334 30.9S 88.4E 35 195 03m06s
 ----- -26 -2475 Jul 24 05:46:29 58741 -55342 T -0.7663 1.0285 25.9S 30.7W 40 150 02m44s
 ----- -25 -2457 Aug 04 13:29:25 58249 -55119 T -0.7215 1.0229 22.6S 150.5W 44 112 02m14s
 ----- -24 -2439 Aug 14 21:20:29 57759 -54896 T -0.6839 1.0172 20.8S 88.0E 47 80 01m40s
 ----- -23 -2421 Aug 26 05:18:48 57270 -54673 H -0.6532 1.0112 20.4S 35.2W 49 50 01m04s
 ----- -22 -2403 Sep 05 13:24:05 56784 -54450 H -0.6288 1.0053 21.2S 159.9W 51 23 00m30s
 ----- -21 -2385 Sep 16 21:37:07 56300 -54227 A -0.6116 0.9995 23.1S 73.3E 52 2 00m03s
 ----- -20 -2367 Sep 27 05:56:38 55818 -54004 A -0.6007 0.9941 26.0S 55.1W 53 25 00m32s
 ----- -19 -2349 Oct 08 14:22:11 55338 -53781 A -0.5951 0.9890 29.7S 175.0E 53 47 00m58s
 ----- -18 -2331 Oct 18 22:50:28 54860 -53558 A -0.5925 0.9844 33.8S 44.5E 53 67 01m21s
 ----- -17 -2313 Oct 30 07:22:48 54384 -53335 A -0.5940 0.9804 38.4S 86.8W 53 85 01m40s
 ----- -16 -2295 Nov 09 15:55:23 53910 -53112 A -0.5966 0.9770 43.1S 142.4E 53 101 01m55s
 ----- -15 -2277 Nov 21 00:27:44 53438 -52889 A -0.5997 0.9743 47.8S 12.5E 53 114 02m07s
 ----- -14 -2259 Dec 01 08:56:19 52969 -52666 A -0.6008 0.9721 52.0S 115.3W 53 124 02m17s
 ----- -13 -2241 Dec 12 17:21:27 52501 -52443 A -0.5997 0.9706 55.7S 119.5E 53 132 02m25s
 ----- -12 -2223 Dec 23 01:39:37 52036 -52220 A -0.5939 0.9696 58.2S 2.0W 53 136 02m30s
 ----- -11 -2204 Jan 03 09:50:09 51572 -51997 A -0.5827 0.9691 59.2S 120.0W 54 137 02m35s
 ----- -10 -2186 Jan 13 17:51:29 51111 -51774 A -0.5650 0.9690 58.4S 124.7E 55 136 02m39s

-----09 -2168 Jan 25 01:43:38 50652 -51551 A -0.5409 0.9692 55.8S 10.7E 57 132 02m43s
 -----08 -2150 Feb 04 09:24:06 50195 -51328 A -0.5079 0.9696 51.6S 102.3W 59 127 02m47s
 -----07 -2132 Feb 15 16:54:35 49739 -51105 A -0.4674 0.9701 46.1S 145.2E 62 122 02m52s
 -----06 -2114 Feb 26 00:13:39 49286 -50882 A -0.4184 0.9706 39.5S 33.8E 65 116 02m57s
 -----05 -2096 Mar 08 07:23:38 48835 -50659 A -0.3629 0.9709 32.3S 76.5W 69 112 03m04s
 -----04 -2078 Mar 19 14:21:35 48386 -50436 A -0.2981 0.9710 24.5S 175.3E 73 109 03m12s
 -----03 -2060 Mar 29 21:12:36 47940 -50213 A -0.2285 0.9707 16.3S 68.4E 77 108 03m22s
 -----02 -2042 Apr 10 03:54:13 47495 -49990 A -0.1516 0.9701 7.7S 36.5W 81 109 03m33s
 -----01 -2024 Apr 20 10:31:12 47052 -49767 Am -0.0718 0.9690 0.9N 140.3W 86 112 03m45s
 -----00 -2006 May 01 17:00:43 46612 -49544 A 0.0134 0.9673 9.7N 117.9E 89 118 03m58s
 00027 01 -1988 May 11 23:28:58 46173 -49321 A 0.0987 0.9652 18.3N 16.8E 84 126 04m11s
 00070 02 -1970 May 23 05:53:04 45736 -49098 A 0.1869 0.9625 26.8N 82.7W 79 138 04m23s
 00113 03 -1952 Jun 02 12:18:03 45302 -48875 A 0.2734 0.9595 34.9N 178.5E 74 153 04m34s
 00156 04 -1934 Jun 13 18:42:52 44870 -48652 A 0.3594 0.9558 42.5N 81.0E 69 173 04m44s
 00200 05 -1916 Jun 24 01:12:09 44439 -48429 A 0.4409 0.9519 49.4N 15.9W 64 197 04m53s
 00244 06 -1898 Jul 05 07:45:10 44011 -48206 A 0.5188 0.9476 55.2N 111.5W 58 226 05m02s
 00289 07 -1880 Jul 15 14:24:03 43585 -47983 A 0.5912 0.9430 59.7N 154.2E 53 262 05m12s
 00335 08 -1862 Jul 26 21:10:21 43161 -47760 A 0.6570 0.9383 62.4N 60.2E 49 304 05m24s
 00381 09 -1844 Aug 06 04:04:34 42739 -47537 A 0.7161 0.9335 63.3N 35.0W 44 355 05m37s
 00427 10 -1826 Aug 17 11:07:52 42319 -47314 A 0.7672 0.9289 62.6N 133.7W 40 414 05m53s
 00472 11 -1808 Aug 27 18:20:00 41901 -47091 A 0.8110 0.9244 60.9N 123.0E 36 482 06m12s
 00519 12 -1790 Sep 08 01:42:19 41486 -46868 A 0.8463 0.9202 58.7N 14.4E 32 558 06m33s
 00564 13 -1772 Sep 18 09:13:28 41072 -46645 A 0.8744 0.9165 56.3N 98.7W 29 641 06m57s
 00609 14 -1754 Sep 29 16:52:56 40660 -46422 A 0.8956 0.9133 54.1N 144.1E 26 725 07m23s
 00654 15 -1736 Oct 10 00:40:09 40251 -46199 A 0.9103 0.9108 52.1N 23.5E 24 802 07m50s
 00701 16 -1718 Oct 21 08:33:49 39843 -45976 A 0.9195 0.9091 50.2N 100.1W 23 861 08m18s
 00746 17 -1700 Oct 31 16:31:53 39438 -45753 A 0.9254 0.9081 48.5N 134.6E 22 905 08m44s
 00790 18 -1682 Nov 12 00:32:11 39034 -45530 A 0.9295 0.9078 47.1N 8.3E 21 936 09m08s

00832 19 -1664 Nov 22 08:33:54 38633 -45307 A 0.9323 0.9083 46.1N 118.5W 21 955 09m26s
 00873 20 -1646 Dec 03 16:35:07 38234 -45084 A 0.9353 0.9095 45.6N 114.7E 20 971 09m36s
 00914 21 -1628 Dec 14 00:32:53 37837 -44861 A 0.9413 0.9113 46.1N 11.0W 19 1006 09m33s
 00955 22 -1610 Dec 25 08:26:41 37442 -44638 A 0.9505 0.9134 47.8N 135.9W 18 1076 09m18s
 00996 23 -1591 Jan 04 16:14:07 37049 -44415 A 0.9652 0.9160 51.3N 100.6E 15 1258 08m45s
 01037 24 -1573 Jan 15 23:55:57 36658 -44192 An 0.9847 0.9183 57.7N 22.6W 9 - 07m57s
 01078 25 -1555 Jan 26 07:28:19 36269 -43969 A+ 1.0120 0.9351 67.8N 148.3W 0
 01118 26 -1537 Feb 06 14:54:09 35882 -43746 P 1.0448 0.8815 68.8N 87.0E 0
 01158 27 -1519 Feb 16 22:10:22 35498 -43523 P 1.0857 0.8139 69.7N 35.9W 0
 01198 28 -1501 Feb 28 05:19:15 35115 -43300 P 1.1329 0.7347 70.5N 157.5W 0
 01238 29 -1483 Mar 10 12:19:02 34735 -43077 P 1.1879 0.6414 71.1N 82.6E 0
 01278 30 -1465 Mar 21 19:13:02 34356 -42854 P 1.2478 0.5385 71.5N 36.2W 0
 01318 31 -1447 Apr 01 02:00:26 33980 -42631 P 1.3133 0.4249 71.7N 153.6W 0
 01359 32 -1429 Apr 12 08:42:37 33605 -42408 P 1.3832 0.3025 71.6N 90.4E 0
 01400 33 -1411 Apr 22 15:21:18 33233 -42185 P 1.4562 0.1736 71.2N 24.6W 0
 01441 34 -1393 May 03 21:58:15 32863 -41962 Pe 1.5310 0.0404 70.7N 138.7W 0

SAROS SERIES

7

Saros series 7 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

-----	-34	-2590	Apr 08	18:27:08	61939	-56768	Pb	1.5207	0.0694	60.5N	76.2E	0	
-----	-33	-2572	Apr 19	00:49:25	61433	-56545	P	1.4395	0.2092	60.5N	30.2W	0	
-----	-32	-2554	Apr 30	07:08:29	60930	-56322	P	1.3557	0.3536	60.7N	135.8W	0	
-----	-31	-2536	May 10	13:24:39	60428	-56099	P	1.2695	0.5018	60.9N	119.3E	0	
-----	-30	-2518	May 21	19:40:47	59929	-55876	P	1.1830	0.6501	61.4N	14.3E	0	
-----	-29	-2500	Jun 01	01:56:56	59431	-55653	P	1.0962	0.7985	61.9N	90.8W	0	
-----	-28	-2482	Jun 12	08:17:20	58936	-55430	A+	1.0127	0.9405	62.6N	162.9E	0	
-----	-27	-2464	Jun 22	14:41:39	58443	-55207	A	0.9322	0.9363	76.2N	106.9E	21	667 04m19s
-----	-26	-2446	Jul 03	21:11:51	57952	-54984	A	0.8564	0.9361	78.3N	51.6E	31	465 04m42s
-----	-25	-2428	Jul 14	03:49:13	57463	-54761	A	0.7861	0.9350	75.3N	17.5W	38	395 05m08s
-----	-24	-2410	Jul 25	10:35:27	56976	-54538	A	0.7229	0.9334	70.1N	104.5W	43	362 05m38s
-----	-23	-2392	Aug 04	17:31:15	56491	-54315	A	0.6671	0.9315	64.3N	157.9E	48	346 06m09s
-----	-22	-2374	Aug 16	00:36:22	56008	-54092	A	0.6186	0.9294	58.1N	53.7E	52	337 06m42s
-----	-21	-2356	Aug 26	07:52:27	55527	-53869	A	0.5789	0.9275	52.1N	55.4W	54	334 07m16s
-----	-20	-2338	Sep 06	15:18:42	55048	-53646	A	0.5471	0.9256	46.1N	168.4W	57	334 07m48s
-----	-19	-2320	Sep 16	22:54:31	54572	-53423	A	0.5227	0.9241	40.3N	75.4E	58	334 08m18s
-----	-18	-2302	Sep 28	06:39:25	54097	-53200	A	0.5054	0.9229	34.7N	43.6W	59	335 08m46s
-----	-17	-2284	Oct 08	14:31:48	53624	-52977	A	0.4936	0.9222	29.5N	164.8W	60	335 09m09s
-----	-16	-2266	Oct 19	22:31:09	53154	-52754	A	0.4874	0.9220	24.6N	72.2E	61	335 09m30s
-----	-15	-2248	Oct 30	06:33:32	52686	-52531	A	0.4831	0.9226	20.1N	51.7W	61	331 09m45s
-----	-14	-2230	Nov 10	14:40:19	52219	-52308	A	0.4819	0.9237	16.1N	176.7W	61	326 09m55s

----- -13 -2212 Nov 20 22:46:45 51755 -52085 A 0.4796 0.9256 12.5N 58.4E 61 318 09m57s
 ----- -12 -2194 Dec 02 06:53:13 51293 -51862 A 0.4771 0.9282 9.4N 66.5W 61 306 09m49s
 ----- -11 -2176 Dec 12 14:54:59 50833 -51639 A 0.4699 0.9315 6.6N 170.0E 62 290 09m29s
 ----- -10 -2158 Dec 23 22:54:02 50375 -51416 A 0.4600 0.9355 4.3N 47.2E 63 270 08m56s
 ----- -09 -2139 Jan 03 06:46:33 49919 -51193 A 0.4435 0.9401 2.4N 73.7W 64 248 08m12s
 ----- -08 -2121 Jan 14 14:32:33 49465 -50970 A 0.4210 0.9453 0.9N 167.2E 65 222 07m18s
 ----- -07 -2103 Jan 24 22:10:31 49013 -50747 A 0.3908 0.9508 0.3S 50.3E 67 195 06m19s
 ----- -06 -2085 Feb 05 05:41:18 48563 -50524 A 0.3537 0.9568 1.0S 64.5W 69 168 05m19s
 ----- -05 -2067 Feb 15 13:03:49 48116 -50301 A 0.3089 0.9629 1.4S 177.0W 72 140 04m21s
 ----- -04 -2049 Feb 26 20:18:44 47670 -50078 A 0.2565 0.9692 1.4S 72.7E 75 114 03m27s
 ----- -03 -2031 Mar 09 03:26:36 47227 -49855 A 0.1971 0.9754 1.2S 35.6W 79 89 02m38s
 ----- -02 -2013 Mar 20 10:28:58 46785 -49632 A 0.1322 0.9815 0.7S 142.4W 82 66 01m55s
 00011 -01 -1995 Mar 30 17:24:52 46346 -49409 A 0.0609 0.9873 0.2S 112.7E 87 45 01m17s
 00054 00 -1977 Apr 11 00:17:50 45908 -49186 A -0.0139 0.9927 0.4N 8.5E 89 26 00m44s
 00096 01 -1959 Apr 21 07:07:29 45473 -48963 A -0.0923 0.9977 0.6N 94.7W 85 8 00m14s
 00139 02 -1941 May 02 13:57:20 45040 -48740 Hm -0.1717 1.0021 0.5N 161.9E 80 7 00m12s
 00182 03 -1923 May 12 20:45:04 44609 -48517 H -0.2538 1.0059 0.2S 59.1E 75 21 00m36s
 00226 04 -1905 May 24 03:36:37 44180 -48294 H -0.3336 1.0090 1.6S 45.0W 71 33 00m56s
 00270 05 -1887 Jun 03 10:29:53 43753 -48071 H -0.4126 1.0115 3.7S 149.8W 66 43 01m13s
 00316 06 -1869 Jun 14 17:29:24 43328 -47848 H -0.4875 1.0133 6.6S 103.4E 61 52 01m26s
 00363 07 -1851 Jun 25 00:33:02 42905 -47625 H2 -0.5598 1.0145 10.4S 5.0W 56 60 01m34s
 00409 08 -1833 Jul 06 07:46:09 42485 -47402 T -0.6253 1.0151 14.7S 116.4W 51 66 01m37s
 00454 09 -1815 Jul 16 15:06:20 42066 -47179 T -0.6856 1.0151 19.6S 129.8E 47 71 01m35s
 00500 10 -1797 Jul 27 22:35:52 41649 -46956 T -0.7391 1.0147 25.0S 12.9E 42 75 01m30s
 00546 11 -1779 Aug 07 06:14:34 41235 -46733 T -0.7859 1.0139 30.8S 107.0W 38 77 01m21s
 00591 12 -1761 Aug 18 14:04:01 40822 -46510 T -0.8246 1.0130 36.6S 129.7E 34 79 01m12s
 00636 13 -1743 Aug 28 22:03:23 40412 -46287 T -0.8559 1.0120 42.3S 3.2E 31 80 01m02s
 00682 14 -1725 Sep 09 06:11:45 40004 -46064 T -0.8805 1.0111 47.8S 126.2W 28 81 00m54s

00728 15 -1707 Sep 19 14:30:13 39598 -45841 T -0.8974 1.0105 52.9S 101.4E 26 82 00m48s
 00772 16 -1689 Sep 30 22:56:52 39193 -45618 T -0.9084 1.0102 57.6S 33.2W 24 84 00m44s
 00816 17 -1671 Oct 11 07:30:53 38791 -45395 T -0.9140 1.0104 61.8S 169.6W 23 89 00m43s
 00857 18 -1653 Oct 22 16:10:27 38391 -45172 T -0.9157 1.0111 65.9S 53.0E 23 96 00m44s
 00898 19 -1635 Nov 02 00:55:01 37993 -44949 T -0.9140 1.0124 69.8S 84.7W 23 106 00m47s
 00939 20 -1617 Nov 13 09:42:09 37597 -44726 T -0.9108 1.0143 73.8S 137.8E 24 120 00m52s
 00980 21 -1599 Nov 23 18:30:08 37204 -44503 T -0.9075 1.0167 78.0S 1.3E 24 138 00m59s
 01021 22 -1581 Dec 05 03:18:02 36812 -44280 T -0.9051 1.0196 82.3S 132.7W 25 160 01m08s
 01062 23 -1563 Dec 15 12:03:55 36422 -44057 T -0.9053 1.0228 86.7S 103.4E 25 186 01m18s
 01102 24 -1545 Dec 26 20:45:32 36035 -43834 T -0.9094 1.0265 88.0S 94.2E 24 220 01m28s
 01142 25 -1526 Jan 06 05:22:05 35649 -43611 T -0.9184 1.0302 83.6S 12.6W 23 263 01m39s
 01182 26 -1508 Jan 17 13:52:29 35266 -43388 T -0.9330 1.0340 78.9S 137.2W 21 326 01m49s
 01222 27 -1490 Jan 27 22:16:48 34884 -43165 T -0.9536 1.0375 74.1S 99.0E 17 431 01m58s
 01262 28 -1472 Feb 08 06:32:03 34505 -42942 T -0.9820 1.0401 68.6S 17.3W 10 771 02m01s
 01302 29 -1454 Feb 18 14:40:46 34128 -42719 P -1.0164 0.9845 61.9S 130.7W 0
 01343 30 -1436 Feb 29 22:40:19 33753 -42496 P -1.0586 0.9059 61.3S 98.9E 0
 01384 31 -1418 Mar 12 06:33:44 33380 -42273 P -1.1062 0.8159 61.0S 29.9W 0
 01425 32 -1400 Mar 22 14:18:16 33009 -42050 P -1.1615 0.7103 60.7S 156.3W 0
 01466 33 -1382 Apr 02 21:58:15 32640 -41827 P -1.2208 0.5962 60.7S 78.4E 0
 01508 34 -1364 Apr 13 05:31:40 32273 -41604 P -1.2855 0.4709 60.8S 45.3W 0
 01550 35 -1346 Apr 24 13:01:27 31908 -41381 P -1.3532 0.3390 61.0S 168.0W 0
 01593 36 -1328 May 04 20:27:22 31545 -41158 P -1.4242 0.2007 61.4S 70.1E 0
 01636 37 -1310 May 16 03:52:19 31185 -40935 Pe -1.4957 0.0613 61.9S 51.7W 0

SAROS SERIES

8

Saros series 8 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-36	-2579 Mar 07	20:26:02	61633	-56633	Pb	-1.5074	0.0719	70.3S	93.7W	0		
-----	-35	-2561 Mar 19	03:38:00	61128	-56410	P	-1.4420	0.1880	71.0S	142.9E	0		
-----	-34	-2543 Mar 29	10:44:21	60626	-56187	P	-1.3708	0.3162	71.4S	20.6E	0		
-----	-33	-2525 Apr 09	17:48:18	60126	-55964	P	-1.2962	0.4520	71.6S	101.4W	0		
-----	-32	-2507 Apr 20	00:49:40	59628	-55741	P	-1.2183	0.5954	71.5S	137.3E	0		
-----	-31	-2489 May 01	07:49:49	59131	-55518	P	-1.1382	0.7442	71.3S	16.3E	0		
-----	-30	-2471 May 11	14:50:59	58637	-55295	P	-1.0577	0.8949	70.8S	104.5W	0		
-----	-29	-2453 May 22	21:54:09	58145	-55072	T	-0.9775	1.0220	60.7S	119.1E	11	375	01m35s
-----	-28	-2435 Jun 02	05:01:28	57655	-54849	T	-0.8996	1.0286	45.4S	4.4W	26	223	02m23s
-----	-27	-2417 Jun 13	12:12:21	57168	-54626	T	-0.8238	1.0330	34.8S	120.8W	34	196	03m00s
-----	-26	-2399 Jun 23	19:30:49	56682	-54403	T	-0.7530	1.0359	26.5S	123.3E	41	184	03m27s
-----	-25	-2381 Jul 05	02:55:16	56198	-54180	T	-0.6861	1.0380	19.8S	7.2E	47	175	03m46s
-----	-24	-2363 Jul 15	10:28:24	55717	-53957	T	-0.6255	1.0392	14.7S	110.2W	51	168	03m55s
-----	-23	-2345 Jul 26	18:09:16	55237	-53734	T	-0.5706	1.0398	10.9S	131.1E	55	162	03m57s

----- -22 -2327 Aug 06 02:00:49 54759 -53511 T -0.5238 1.0399 8.6S 10.2E 58 156 03m53s
 ----- -21 -2309 Aug 17 10:01:08 54284 -53288 T -0.4836 1.0396 7.7S 112.7W 61 151 03m45s
 ----- -20 -2291 Aug 27 18:10:54 53811 -53065 T -0.4505 1.0391 8.0S 122.3E 63 146 03m35s
 ----- -19 -2273 Sep 08 02:29:55 53339 -52842 T -0.4247 1.0384 9.4S 5.1W 65 141 03m25s
 ----- -18 -2255 Sep 18 10:58:02 52870 -52619 T -0.4062 1.0378 11.9S 134.8W 66 138 03m16s
 ----- -17 -2237 Sep 29 19:33:10 52403 -52396 T -0.3930 1.0373 15.2S 93.7E 67 135 03m08s
 ----- -16 -2219 Oct 10 04:14:52 51938 -52173 T -0.3852 1.0371 19.1S 39.5W 67 134 03m02s
 ----- -15 -2201 Oct 21 13:01:25 51475 -51950 T -0.3810 1.0372 23.4S 173.8W 67 134 03m00s
 ----- -14 -2183 Oct 31 21:52:24 51014 -51727 T -0.3803 1.0377 28.0S 51.1E 67 136 02m59s
 ----- -13 -2165 Nov 12 06:43:55 50555 -51504 T -0.3800 1.0388 32.4S 83.7W 67 140 03m02s
 ----- -12 -2147 Nov 22 15:37:11 50099 -51281 T -0.3809 1.0403 36.6S 141.8E 67 146 03m08s
 ----- -11 -2129 Dec 04 00:27:43 49644 -51058 T -0.3796 1.0424 40.2S 8.8E 67 153 03m16s
 ----- -10 -2111 Dec 14 09:16:25 49191 -50835 T -0.3764 1.0449 43.0S 122.7W 68 162 03m28s
 ----- -09 -2093 Dec 25 17:58:40 48741 -50612 T -0.3678 1.0479 44.6S 108.2E 68 171 03m43s
 ----- -08 -2074 Jan 05 02:37:15 48292 -50389 T -0.3559 1.0512 44.8S 19.4W 69 182 04m00s
 ----- -07 -2056 Jan 16 11:07:36 47846 -50166 T -0.3375 1.0548 43.5S 145.2W 70 192 04m20s
 ----- -06 -2038 Jan 26 19:31:17 47401 -49943 T -0.3130 1.0585 40.8S 90.1E 72 203 04m42s
 ----- -05 -2020 Feb 07 03:45:43 46959 -49720 T -0.2809 1.0621 36.7S 33.5W 73 213 05m05s
 ----- -04 -2002 Feb 17 11:53:01 46519 -49497 T -0.2427 1.0658 31.5S 156.3W 76 222 05m29s
 00036 -03 -1984 Feb 28 19:51:38 46081 -49274 T -0.1975 1.0690 25.5S 81.9E 78 229 05m53s
 00079 -02 -1966 Mar 11 03:42:14 45645 -49051 T -0.1456 1.0719 18.7S 38.7W 82 236 06m14s
 00122 -01 -1948 Mar 21 11:25:32 45211 -48828 T -0.0878 1.0742 11.4S 158.1W 85 242 06m31s
 00165 00 -1930 Apr 01 19:02:33 44779 -48605 Tm -0.0247 1.0760 3.7S 83.6E 89 246 06m43s
 00208 01 -1912 Apr 12 02:33:41 44349 -48382 T 0.0431 1.0769 4.3N 33.4W 88 249 06m48s
 00252 02 -1894 Apr 23 10:00:21 43921 -48159 T 0.1144 1.0770 12.5N 149.2W 83 251 06m45s
 00297 03 -1876 May 03 17:23:23 43496 -47936 T 0.1886 1.0763 20.7N 96.0E 79 251 06m34s
 00344 04 -1858 May 15 00:44:54 43072 -47713 T 0.2636 1.0746 28.8N 18.0W 75 251 06m15s
 00390 05 -1840 May 25 08:04:26 42650 -47490 T 0.3401 1.0720 36.8N 130.7W 70 249 05m50s

00436	06	-1822	Jun 05	15:25:30	42231	-47267	T	0.4148	1.0686	44.3N	117.3E	65	246	05m20s
00482	07	-1804	Jun 15	22:47:41	41814	-47044	T	0.4884	1.0643	51.4N	6.6E	61	242	04m47s
00529	08	-1786	Jun 27	06:14:07	41398	-46821	T	0.5578	1.0592	57.5N	102.8W	56	235	04m13s
00574	09	-1768	Jul 07	13:43:11	40985	-46598	T	0.6244	1.0535	62.5N	150.3E	51	227	03m39s
00619	10	-1750	Jul 18	21:18:48	40574	-46375	T	0.6850	1.0472	65.9N	44.9E	46	216	03m07s
00664	11	-1732	Jul 29	04:59:19	40165	-46152	T	0.7411	1.0404	67.3N	59.6W	42	202	02m36s
00711	12	-1714	Aug 09	12:47:18	39758	-45929	T	0.7902	1.0335	66.8N	166.8W	37	184	02m07s
00755	13	-1696	Aug 19	20:41:34	39353	-45706	T	0.8335	1.0263	65.1N	81.8E	33	161	01m39s
00799	14	-1678	Aug 31	04:44:18	38950	-45483	T	0.8690	1.0192	62.7N	35.2W	29	132	01m13s
00840	15	-1660	Sep 10	12:54:09	38549	-45260	T	0.8980	1.0123	60.3N	156.8W	26	95	00m47s
00881	16	-1642	Sep 21	21:10:34	38150	-45037	H	0.9211	1.0057	58.1N	77.9E	23	50	00m22s
00922	17	-1624	Oct 02	05:33:58	37753	-44814	A	0.9377	0.9995	56.3N	51.0W	20	5	00m02s
00963	18	-1606	Oct 13	14:02:49	37359	-44591	A	0.9490	0.9940	54.7N	177.1E	18	66	00m25s
01005	19	-1588	Oct 23	22:36:30	36966	-44368	A	0.9560	0.9892	53.4N	42.8E	17	129	00m47s
01046	20	-1570	Nov 04	07:12:05	36576	-44145	A	0.9608	0.9850	52.4N	92.6W	16	191	01m08s
01087	21	-1552	Nov 14	15:50:05	36187	-43922	A	0.9631	0.9815	51.5N	130.7E	15	245	01m27s
01127	22	-1534	Nov 26	00:27:19	35801	-43699	A	0.9654	0.9786	51.1N	5.9W	15	295	01m44s
01166	23	-1516	Dec 06	09:02:31	35417	-43476	A	0.9687	0.9762	51.4N	141.8W	14	348	01m59s
01206	24	-1498	Dec 17	17:33:27	35035	-43253	A	0.9748	0.9742	52.8N	83.4E	12	429	02m11s
01246	25	-1480	Dec 28	01:59:17	34655	-43030	A	0.9844	0.9722	56.1N	50.0W	9	611	02m20s
01286	26	-1461	Jan 08	10:17:29	34277	-42807	A+	0.9994	0.9805	66.1N	178.6E	0		
01327	27	-1443	Jan 18	18:27:07	33901	-42584	P	1.0207	0.9425	67.1N	43.9E	0		
01368	28	-1425	Jan 30	02:27:26	33527	-42361	P	1.0486	0.8929	68.2N	89.0W	0		
01409	29	-1407	Feb 09	10:18:04	33155	-42138	P	1.0831	0.8315	69.2N	139.9E	0		
01450	30	-1389	Feb 20	17:56:51	32785	-41915	P	1.1266	0.7544	70.1N	11.2E	0		
01491	31	-1371	Mar 03	01:25:53	32417	-41692	P	1.1769	0.6651	70.8N	115.6W	0		
01533	32	-1353	Mar 14	08:43:42	32052	-41469	P	1.2353	0.5616	71.4N	119.9E	0		
01575	33	-1335	Mar 24	15:53:17	31688	-41246	P	1.2990	0.4487	71.7N	2.9W	0		

01618 34 -1317 Apr 04 22:51:30 31327 -41023 P 1.3708 0.3218 71.7N 123.0W 0
01662 35 -1299 Apr 15 05:43:56 30967 -40800 P 1.4458 0.1893 71.5N 118.4E 0
01706 36 -1281 Apr 26 12:27:53 30610 -40577 Pe 1.5267 0.0471 71.1N 2.3E 0

SAROS SERIES

9

Saros series 9 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-39	-2568	Feb 06	01:13:11	61327	-56498	Pb	1.5283	0.0081	63.3N	23.3E	0	
-----	-38	-2550	Feb 16	09:15:34	60824	-56275	P	1.4914	0.0778	62.5N	108.8W	0	
-----	-37	-2532	Feb 27	17:08:15	60323	-56052	P	1.4471	0.1619	61.8N	121.7E	0	
-----	-36	-2514	Mar 10	00:53:27	59824	-55829	P	1.3974	0.2569	61.3N	5.7W	0	
-----	-35	-2496	Mar 20	08:30:24	59327	-55606	P	1.3414	0.3641	60.9N	130.9W	0	
-----	-34	-2478	Mar 31	16:01:26	58832	-55383	P	1.2809	0.4800	60.7N	105.5E	0	
-----	-33	-2460	Apr 10	23:24:59	58339	-55160	P	1.2148	0.6066	60.6N	16.2W	0	

----- -32 -2442 Apr 22 06:45:00 57848 -54937 P 1.1462 0.7378 60.6N 137.1W 0
 ----- -31 -2424 May 02 14:00:42 57360 -54714 P 1.0748 0.8737 60.8N 103.2E 0
 ----- -30 -2406 May 13 21:14:28 56873 -54491 T+ 1.0023 1.0109 61.2N 16.2W 0
 ----- -29 -2388 May 24 04:26:57 56389 -54268 T 0.9291 1.0434 66.7N 86.5W 21 394 02m28s
 ----- -28 -2370 Jun 04 11:40:31 55906 -54045 T 0.8575 1.0420 67.6N 178.5W 31 273 02m32s
 ----- -27 -2352 Jun 14 18:56:03 55426 -53822 T 0.7882 1.0390 67.7N 86.0E 38 213 02m28s
 ----- -26 -2334 Jun 26 02:13:42 54948 -53599 T 0.7212 1.0351 66.6N 11.4W 44 171 02m20s
 ----- -25 -2316 Jul 06 09:36:18 54471 -53376 T 0.6593 1.0303 64.4N 112.2W 48 137 02m07s
 ----- -24 -2298 Jul 17 17:03:38 53997 -53153 T 0.6022 1.0250 61.1N 143.1E 53 107 01m51s
 ----- -23 -2280 Jul 28 00:38:03 53525 -52930 T 0.5518 1.0191 56.9N 33.9E 56 79 01m29s
 ----- -22 -2262 Aug 08 08:17:56 53055 -52707 H 0.5068 1.0130 52.1N 78.9W 59 52 01m04s
 ----- -21 -2244 Aug 18 16:06:40 52587 -52484 H 0.4702 1.0068 47.0N 164.4E 62 27 00m35s
 ----- -20 -2226 Aug 30 00:01:51 52121 -52261 H 0.4400 1.0005 41.7N 44.9E 64 2 00m03s
 ----- -19 -2208 Sep 09 08:04:53 51657 -52038 A 0.4173 0.9944 36.4N 77.5W 65 22 00m31s
 ----- -18 -2190 Sep 20 16:14:00 51196 -51815 A 0.4006 0.9885 31.1N 158.0E 66 44 01m07s
 ----- -17 -2172 Oct 01 00:30:28 50736 -51592 A 0.3907 0.9831 26.0N 31.4E 67 65 01m42s
 ----- -16 -2154 Oct 12 08:51:14 50278 -51369 A 0.3855 0.9781 21.2N 96.6W 67 84 02m18s
 ----- -15 -2136 Oct 22 17:15:52 49823 -51146 A 0.3842 0.9736 16.7N 134.3E 67 102 02m52s
 ----- -14 -2118 Nov 03 01:42:31 49369 -50923 A 0.3854 0.9698 12.6N 4.7E 67 117 03m24s
 ----- -13 -2100 Nov 13 10:11:00 48918 -50700 A 0.3886 0.9666 8.9N 125.2W 67 130 03m54s
 ----- -12 -2082 Nov 24 18:36:57 48469 -50477 A 0.3904 0.9641 5.7N 105.5E 67 141 04m20s
 ----- -11 -2064 Dec 05 03:00:37 48022 -50254 A 0.3911 0.9622 2.9N 23.2W 67 149 04m42s
 ----- -10 -2046 Dec 16 11:18:26 47576 -50031 A 0.3875 0.9609 0.6N 150.2W 67 154 04m57s
 ----- -09 -2028 Dec 26 19:31:19 47133 -49808 A 0.3806 0.9601 1.1S 84.0E 68 157 05m06s
 ----- -08 -2009 Jan 07 03:34:03 46692 -49585 A 0.3658 0.9598 2.6S 39.0W 69 157 05m08s
 00020 -07 -1991 Jan 17 11:29:42 46253 -49362 A 0.3460 0.9599 3.5S 160.1W 70 155 05m03s
 00063 -06 -1973 Jan 28 19:13:23 45817 -49139 A 0.3168 0.9602 4.2S 82.0E 72 152 04m54s
 00106 -05 -1955 Feb 08 02:47:50 45382 -48916 A 0.2811 0.9608 4.4S 33.4W 74 148 04m41s

00149 -04 -1937 Feb 19 10:09:18 44949 -48693 A 0.2352 0.9613 4.4S 145.3W 76 144 04m29s
 00192 -03 -1919 Mar 01 17:22:05 44518 -48470 A 0.1830 0.9619 4.1S 105.2E 79 140 04m17s
 00236 -02 -1901 Mar 13 00:23:10 44090 -48247 Am 0.1217 0.9623 3.6S 1.2W 83 137 04m09s
 00280 -01 -1883 Mar 23 07:14:53 43663 -48024 A 0.0534 0.9625 3.0S 105.1W 87 136 04m04s
 00326 00 -1865 Apr 03 13:57:33 43239 -47801 A -0.0214 0.9623 2.6S 153.4E 89 137 04m04s
 00372 01 -1847 Apr 13 20:33:27 42817 -47578 A -0.1011 0.9617 2.3S 53.7E 84 139 04m09s
 00418 02 -1829 Apr 25 03:02:58 42396 -47355 A -0.1855 0.9607 2.5S 44.3W 79 145 04m21s
 00463 03 -1811 May 05 09:27:26 41978 -47132 A -0.2735 0.9592 3.4S 141.1W 74 153 04m39s
 00510 04 -1793 May 16 15:49:33 41562 -46909 A -0.3627 0.9571 5.0S 122.5E 69 166 05m03s
 00556 05 -1775 May 26 22:10:28 41148 -46686 A -0.4519 0.9546 7.5S 26.2E 63 184 05m34s
 00601 06 -1757 Jun 07 04:31:26 40736 -46463 A -0.5404 0.9515 11.0S 70.7W 57 208 06m08s
 00646 07 -1739 Jun 17 10:54:45 40326 -46240 A -0.6264 0.9480 15.5S 168.7W 51 243 06m43s
 00692 08 -1721 Jun 28 17:22:09 39918 -46017 A -0.7083 0.9440 21.1S 91.6E 45 291 07m15s
 00738 09 -1703 Jul 08 23:54:56 39512 -45794 A -0.7850 0.9397 27.8S 10.3W 38 361 07m38s
 00782 10 -1685 Jul 20 06:33:02 39108 -45571 A -0.8568 0.9349 35.8S 114.7W 31 473 07m48s
 00824 11 -1667 Jul 30 13:19:42 38707 -45348 A -0.9208 0.9297 45.2S 137.0E 23 682 07m44s
 00865 12 -1649 Aug 10 20:14:27 38307 -45125 As -0.9777 0.9237 57.8S 22.8E 11 - 07m21s
 00906 13 -1631 Aug 21 03:19:08 37910 -44902 P -1.0262 0.9099 69.6S 104.2W 0
 00947 14 -1613 Sep 01 10:32:31 37514 -44679 P -1.0673 0.8396 70.4S 133.1E 0
 00988 15 -1595 Sep 11 17:56:44 37121 -44456 P -1.0994 0.7850 71.1S 7.1E 0
 01030 16 -1577 Sep 23 01:29:44 36730 -44233 P -1.1243 0.7428 71.6S 121.6W 0
 01071 17 -1559 Oct 03 09:11:03 36340 -44010 P -1.1425 0.7121 71.8S 107.2E 0
 01111 18 -1541 Oct 14 17:00:21 35953 -43787 P -1.1543 0.6921 71.7S 26.0W 0
 01151 19 -1523 Oct 25 00:55:50 35568 -43564 P -1.1616 0.6799 71.4S 160.6W 0
 01191 20 -1505 Nov 05 08:56:27 35185 -43341 P -1.1646 0.6749 70.8S 63.9E 0
 01231 21 -1487 Nov 15 16:58:34 34804 -43118 P -1.1669 0.6713 70.1S 71.4W 0
 01271 22 -1469 Nov 27 01:03:08 34425 -42895 P -1.1673 0.6708 69.1S 153.4E 0
 01311 23 -1451 Dec 07 09:06:01 34049 -42672 P -1.1698 0.6671 68.1S 19.2E 0

01352	24	-1433	Dec 18	17:06:34	33674	-42449	P	-1.1742	0.6603	67.0S	113.7W	0
01393	25	-1415	Dec 29	01:01:31	33301	-42226	P	-1.1836	0.6452	65.9S	115.4E	0
01434	26	-1396	Jan 09	08:51:43	32931	-42003	P	-1.1971	0.6232	64.9S	13.9W	0
01475	27	-1378	Jan 19	16:34:35	32562	-41780	P	-1.2170	0.5903	63.9S	141.0W	0
01517	28	-1360	Jan 31	00:09:43	32196	-41557	P	-1.2435	0.5457	63.0S	94.3E	0
01559	29	-1342	Feb 10	07:36:39	31832	-41334	P	-1.2772	0.4885	62.3S	28.2W	0
01602	30	-1324	Feb 21	14:55:41	31469	-41111	P	-1.3176	0.4192	61.7S	148.4W	0
01645	31	-1306	Mar 03	22:06:21	31109	-40888	P	-1.3651	0.3367	61.2S	93.5E	0
01688	32	-1288	Mar 14	05:09:51	30751	-40665	P	-1.4191	0.2421	60.9S	22.6W	0
01733	33	-1270	Mar 25	12:06:54	30395	-40442	P	-1.4786	0.1367	60.7S	137.1W	0
01778	34	-1252	Apr 04	18:59:23	30041	-40219	Pe	-1.5425	0.0226	60.7S	109.6E	0

SAROS SERIES

10

Saros series 10 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
										GREATEST		°	km	

ECLIPSE

----- -34 -2467 Feb 28 08:05:14 58533 -55248 Pb -1.5553 0.0133 69.9S 86.3E 0

----- -33 -2449 Mar 11 14:52:36 58042 -55025 P -1.4952 0.1154 70.6S 30.5W 0

----- -32 -2431 Mar 21 21:30:34 57552 -54802 P -1.4275 0.2307 71.2S 145.4W 0

----- -31 -2413 Apr 02 04:01:13 57065 -54579 P -1.3540 0.3563 71.5S 101.2E 0

----- -30 -2395 Apr 12 10:25:40 56580 -54356 P -1.2755 0.4908 71.6S 10.9W 0

----- -29 -2377 Apr 23 16:44:10 56096 -54133 P -1.1919 0.6341 71.5S 121.4W 0

----- -28 -2359 May 03 23:00:27 55615 -53910 P -1.1061 0.7811 71.2S 128.8E 0

----- -27 -2341 May 15 05:14:50 55136 -53687 P -1.0181 0.9317 70.6S 19.8E 0

----- -26 -2323 May 25 11:30:10 54659 -53464 A -0.9306 0.9402 51.1S 108.9W 21 608 05m57s

----- -25 -2305 Jun 05 17:46:45 54184 -53241 A -0.8436 0.9417 38.1S 146.1E 32 401 06m41s

----- -24 -2287 Jun 16 00:07:59 53711 -53018 A -0.7599 0.9420 28.1S 43.7E 40 330 07m19s

----- -23 -2269 Jun 27 06:34:07 53240 -52795 A -0.6796 0.9415 20.0S 58.2W 47 295 07m51s

----- -22 -2251 Jul 07 13:06:30 52772 -52572 A -0.6040 0.9406 13.4S 160.6W 53 276 08m14s

----- -21 -2233 Jul 18 19:47:11 52305 -52349 A -0.5347 0.9393 8.3S 95.8E 58 266 08m28s

----- -20 -2215 Jul 29 02:36:52 51840 -52126 A -0.4724 0.9378 4.6S 9.4W 62 261 08m33s

----- -19 -2197 Aug 09 09:37:05 51378 -51903 A -0.4181 0.9360 2.4S 116.7W 65 260 08m32s

----- -18 -2179 Aug 19 16:46:14 50917 -51680 A -0.3707 0.9344 1.6S 133.9E 68 262 08m27s

----- -17 -2161 Aug 31 00:07:20 50459 -51457 A -0.3326 0.9327 2.1S 21.6E 71 265 08m20s

----- -16 -2143 Sep 10 07:37:20 50003 -51234 A -0.3011 0.9313 3.7S 93.0W 72 268 08m13s

----- -15 -2125 Sep 21 15:18:13 49548 -51011 A -0.2782 0.9302 6.3S 149.6E 74 270 08m06s

----- -14 -2107 Oct 01 23:06:32 49096 -50788 A -0.2607 0.9295 9.6S 30.2E 75 272 07m59s

----- -13 -2089 Oct 13 07:04:07 48646 -50565 A -0.2501 0.9294 13.5S 91.5W 75 272 07m51s

----- -12 -2071 Oct 23 15:06:44 48198 -50342 A -0.2430 0.9298 17.7S 145.6E 76 270 07m42s

----- -11 -2053 Nov 03 23:14:31 47752 -50119 A -0.2395 0.9309 22.0S 21.6E 76 266 07m32s

----- -10 -2035 Nov 14 07:24:29 47308 -49896 A -0.2371 0.9326 26.1S 102.5W 76 259 07m19s

----- -09 -2017 Nov 25 15:36:08 46866 -49673 A -0.2359 0.9350 29.9S 133.5E 76 249 07m03s

00002 -08 -1999 Dec 05 23:45:23 46426 -49450 A -0.2317 0.9382 32.9S 10.8E 76 236 06m44s
 00045 -07 -1981 Dec 17 07:52:15 45989 -49227 A -0.2249 0.9420 35.0S 110.7W 77 220 06m21s
 00088 -06 -1963 Dec 27 15:54:04 45553 -49004 A -0.2134 0.9464 35.9S 129.6E 77 202 05m54s
 00131 -05 -1944 Jan 07 23:51:29 45120 -48781 A -0.1977 0.9514 35.5S 11.1E 78 182 05m24s
 00174 -04 -1926 Jan 18 07:40:04 44688 -48558 A -0.1741 0.9570 33.5S 105.5W 80 159 04m50s
 00218 -03 -1908 Jan 29 15:22:41 44259 -48335 A -0.1448 0.9628 30.3S 138.8E 81 136 04m13s
 00262 -02 -1890 Feb 08 22:55:57 43831 -48112 A -0.1069 0.9690 25.8S 24.5E 84 112 03m32s
 00307 -01 -1872 Feb 20 06:23:37 43406 -47889 A -0.0635 0.9753 20.3S 89.3W 86 88 02m49s
 00354 00 -1854 Mar 02 13:41:30 42983 -47666 A -0.0113 0.9817 13.9S 158.6E 89 65 02m05s
 00400 01 -1836 Mar 12 20:55:13 42562 -47443 A 0.0456 0.9880 6.9S 46.8E 87 43 01m22s
 00445 02 -1818 Mar 24 04:01:15 42143 -47220 Am 0.1098 0.9939 0.8N 63.6W 84 21 00m40s
 00491 03 -1800 Apr 03 11:04:05 41726 -46997 A 0.1778 0.9997 8.7N 173.4W 80 1 00m02s
 00538 04 -1782 Apr 14 18:01:43 41311 -46774 H 0.2512 1.0049 17.1N 77.8E 75 17 00m30s
 00583 05 -1764 Apr 25 00:58:42 40898 -46551 H 0.3262 1.0096 25.6N 30.8W 71 35 00m57s
 00628 06 -1746 May 06 07:54:16 40487 -46328 H 0.4033 1.0136 34.2N 138.8W 66 51 01m16s
 00674 07 -1728 May 16 14:50:12 40079 -46105 T 0.4811 1.0170 42.8N 113.6E 61 66 01m30s
 00721 08 -1710 May 27 21:48:23 39672 -45882 T 0.5580 1.0196 51.3N 6.4E 56 81 01m36s
 00765 09 -1692 Jun 07 04:50:08 39268 -45659 T 0.6331 1.0216 59.6N 100.2W 50 95 01m38s
 00809 10 -1674 Jun 18 11:56:44 38865 -45436 T 0.7047 1.0227 67.4N 155.1E 45 110 01m36s
 00849 11 -1656 Jun 28 19:08:31 38465 -45213 T 0.7729 1.0231 74.4N 55.8E 39 125 01m31s
 00890 12 -1638 Jul 10 02:27:59 38066 -44990 T 0.8355 1.0227 79.4N 30.3W 33 142 01m24s
 00931 13 -1620 Jul 20 09:55:17 37670 -44767 T 0.8927 1.0217 79.8N 101.9W 26 166 01m16s
 00972 14 -1602 Jul 31 17:30:59 37276 -44544 T 0.9438 1.0198 75.5N 172.5E 19 209 01m06s
 01013 15 -1584 Aug 11 01:16:09 36884 -44321 T 0.9879 1.0164 68.0N 75.4E 8 414 00m51s
 01054 16 -1566 Aug 22 09:11:28 36494 -44098 P 1.0244 0.9567 62.0N 40.2W 0
 01095 17 -1548 Sep 01 17:16:45 36106 -43875 P 1.0539 0.9018 61.4N 172.2W 0
 01135 18 -1530 Sep 13 01:30:42 35720 -43652 P 1.0771 0.8587 61.0N 53.9E 0
 01175 19 -1512 Sep 23 09:54:09 35336 -43429 P 1.0935 0.8282 60.7N 82.3W 0

01215	20	-1494	Oct 04	18:25:40	34954	-43206	P	1.1040	0.8087	60.6N	139.5E	0
01255	21	-1476	Oct 15	03:04:02	34575	-42983	P	1.1097	0.7982	60.7N	0.3W	0
01295	22	-1458	Oct 26	11:47:51	34197	-42760	P	1.1115	0.7949	60.9N	141.5W	0
01336	23	-1440	Nov 05	20:35:39	33822	-42537	P	1.1108	0.7964	61.3N	76.2E	0
01377	24	-1422	Nov 17	05:26:18	33448	-42314	P	1.1083	0.8014	61.9N	66.9W	0
01418	25	-1404	Nov 27	14:16:25	33077	-42091	P	1.1066	0.8051	62.6N	149.9E	0
01459	26	-1386	Dec 08	23:06:43	32708	-41868	P	1.1054	0.8081	63.4N	6.5E	0
01501	27	-1368	Dec 19	07:53:14	32340	-41645	P	1.1072	0.8055	64.3N	136.3W	0
01543	28	-1350	Dec 30	16:36:22	31975	-41422	P	1.1125	0.7964	65.3N	81.4E	0
01585	29	-1331	Jan 10	01:12:33	31612	-41199	P	1.1238	0.7761	66.4N	59.6W	0
01628	30	-1313	Jan 21	09:43:54	31251	-40976	P	1.1394	0.7475	67.4N	160.1E	0
01672	31	-1295	Jan 31	18:07:10	30892	-40753	P	1.1619	0.7057	68.5N	21.4E	0
01716	32	-1277	Feb 12	02:23:05	30535	-40530	P	1.1908	0.6513	69.4N	116.1W	0
01760	33	-1259	Feb 22	10:30:26	30180	-40307	P	1.2271	0.5823	70.2N	107.9E	0
01806	34	-1241	Mar 05	18:30:45	29828	-40084	P	1.2695	0.5010	70.9N	26.8W	0
01851	35	-1223	Mar 16	02:23:20	29477	-39861	P	1.3184	0.4067	71.3N	160.0W	0
01896	36	-1205	Mar 27	10:08:41	29128	-39638	P	1.3732	0.3005	71.6N	68.3E	0
01941	37	-1187	Apr 06	17:48:03	28782	-39415	P	1.4330	0.1840	71.5N	62.0W	0
01987	38	-1169	Apr 18	01:22:14	28437	-39192	Pe	1.4971	0.0590	71.3N	169.3E	0

SAROS SERIES

Saros series 11 contains 76 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST ° km

ECLIPSE

-----	-39	-2492	Jan 06	16:40:38	59223	-55559	Pb	1.5379	0.0296	65.8N	169.1E	0	
-----	-38	-2474	Jan 17	00:38:03	58728	-55336	P	1.5113	0.0738	64.8N	37.5E	0	
-----	-37	-2456	Jan 28	08:28:02	58236	-55113	P	1.4779	0.1305	63.8N	91.9W	0	
-----	-36	-2438	Feb 07	16:11:16	57745	-54890	P	1.4378	0.2001	62.9N	140.8E	0	
-----	-35	-2420	Feb 18	23:45:32	57257	-54667	P	1.3894	0.2854	62.2N	15.9E	0	
-----	-34	-2402	Mar 01	07:14:11	56771	-54444	P	1.3352	0.3825	61.5N	107.3W	0	
-----	-33	-2384	Mar 11	14:35:20	56287	-54221	P	1.2739	0.4939	61.0N	131.5E	0	
-----	-32	-2366	Mar 22	21:52:15	55805	-53998	P	1.2077	0.6154	60.7N	11.4E	0	
-----	-31	-2348	Apr 02	05:03:09	55325	-53775	P	1.1353	0.7500	60.5N	107.0W	0	
-----	-30	-2330	Apr 13	12:12:37	54847	-53552	P	1.0604	0.8906	60.4N	134.9E	0	
-----	-29	-2312	Apr 23	19:19:19	54371	-53329	T	0.9820	1.0227	61.0N	38.1E	10	432 01m20s
-----	-28	-2294	May 05	02:25:46	53898	-53106	T	0.9022	1.0313	59.3N	48.3W	25	243 01m58s
-----	-27	-2276	May 15	09:32:55	53426	-52883	T	0.8220	1.0373	58.4N	145.7W	34	218 02m25s
-----	-26	-2258	May 26	16:42:45	52956	-52660	T	0.7432	1.0419	57.8N	113.9E	42	208 02m48s
-----	-25	-2240	Jun 05	23:56:09	52489	-52437	T	0.6663	1.0455	57.1N	11.9E	48	203 03m08s
-----	-24	-2222	Jun 17	07:13:21	52023	-52214	T	0.5918	1.0481	55.8N	91.5W	53	198 03m25s
-----	-23	-2204	Jun 27	14:37:05	51560	-51991	T	0.5221	1.0499	53.8N	162.7E	58	194 03m39s

----- -22 -2186 Jul 08 22:07:34 51099 -51768 T 0.4577 1.0508 51.1N 54.0E 63 190 03m52s
 ----- -21 -2168 Jul 19 05:45:41 50639 -51545 T 0.3991 1.0512 47.5N 57.9W 66 185 04m02s
 ----- -20 -2150 Jul 30 13:32:10 50182 -51322 T 0.3470 1.0509 43.3N 173.1W 69 180 04m08s
 ----- -19 -2132 Aug 09 21:28:08 49727 -51099 T 0.3022 1.0502 38.7N 68.1E 72 175 04m12s
 ----- -18 -2114 Aug 21 05:33:36 49274 -50876 T 0.2652 1.0491 33.7N 54.1W 74 169 04m12s
 ----- -17 -2096 Aug 31 13:46:57 48823 -50653 T 0.2344 1.0480 28.5N 178.9W 76 164 04m11s
 ----- -16 -2078 Sep 11 22:10:14 48374 -50430 T 0.2116 1.0467 23.3N 53.2E 78 159 04m08s
 ----- -15 -2060 Sep 22 06:41:12 47928 -50207 T 0.1947 1.0455 18.1N 76.9W 79 154 04m04s
 ----- -14 -2042 Oct 03 15:20:29 47483 -49984 T 0.1846 1.0445 13.0N 150.7E 79 151 04m01s
 ----- -13 -2024 Oct 14 00:04:14 47040 -49761 T 0.1780 1.0438 8.1N 17.2E 80 148 04m00s
 ----- -12 -2006 Oct 25 08:54:25 46600 -49538 T 0.1766 1.0434 3.6N 118.0W 80 147 04m00s
 00028 -11 -1988 Nov 04 17:46:47 46161 -49315 T 0.1768 1.0435 0.6S 106.5E 80 148 04m04s
 00071 -10 -1970 Nov 16 02:41:09 45725 -49092 T 0.1785 1.0442 4.4S 29.3W 80 150 04m10s
 00114 -09 -1952 Nov 26 11:34:24 45290 -48869 T 0.1792 1.0452 7.7S 164.7W 80 153 04m18s
 00157 -08 -1934 Dec 07 20:26:30 44858 -48646 T 0.1788 1.0468 10.4S 60.5E 80 158 04m28s
 00201 -07 -1916 Dec 18 05:14:10 44428 -48423 T 0.1747 1.0488 12.6S 73.1W 80 165 04m39s
 00245 -06 -1898 Dec 29 13:56:59 44000 -48200 T 0.1665 1.0512 14.2S 154.8E 81 172 04m51s
 00290 -05 -1879 Jan 08 22:33:28 43574 -47977 T 0.1528 1.0539 15.2S 24.5E 81 180 05m01s
 00336 -04 -1861 Jan 20 07:03:23 43150 -47754 T 0.1335 1.0568 15.7S 104.1W 82 189 05m11s
 00382 -03 -1843 Jan 30 15:24:14 42728 -47531 T 0.1064 1.0598 15.7S 129.6E 84 198 05m19s
 00428 -02 -1825 Feb 10 23:37:36 42308 -47308 T 0.0732 1.0627 15.2S 5.3E 86 206 05m25s
 00473 -01 -1807 Feb 21 07:42:02 41890 -47085 Tm 0.0323 1.0654 14.4S 116.8W 88 214 05m31s
 00520 00 -1789 Mar 04 15:39:33 41474 -46862 T -0.0146 1.0677 13.2S 122.9E 89 221 05m36s
 00565 01 -1771 Mar 14 23:27:17 41061 -46639 T -0.0696 1.0696 12.1S 5.0E 86 227 05m39s
 00610 02 -1753 Mar 26 07:09:38 40649 -46416 T -0.1289 1.0709 10.9S 111.5W 83 232 05m43s
 00655 03 -1735 Apr 05 14:43:41 40240 -46193 T -0.1950 1.0715 9.9S 134.0E 79 236 05m46s
 00702 04 -1717 Apr 16 22:13:43 39832 -45970 T -0.2642 1.0714 9.3S 20.5E 75 240 05m49s
 00747 05 -1699 Apr 27 05:37:08 39427 -45747 T -0.3386 1.0703 9.3S 91.3W 70 242 05m50s

00791 06 -1681 May 08 12:59:02 39024 -45524 T -0.4138 1.0685 10.0S 157.0E 65 243 05m49s
 00833 07 -1663 May 18 20:17:26 38622 -45301 T -0.4912 1.0656 11.5S 46.1E 61 244 05m44s
 00874 08 -1645 May 30 03:35:26 38223 -45078 T -0.5683 1.0619 14.0S 65.1W 55 244 05m33s
 00915 09 -1627 Jun 09 10:53:30 37826 -44855 T -0.6445 1.0573 17.6S 176.8W 50 244 05m14s
 00956 10 -1609 Jun 20 18:13:40 37431 -44632 T -0.7181 1.0518 22.2S 70.4E 44 245 04m47s

 00997 11 -1591 Jul 01 01:36:49 37038 -44409 T -0.7886 1.0455 28.0S 43.9W 38 246 04m10s
 01038 12 -1573 Jul 12 09:03:23 36647 -44186 T -0.8554 1.0385 35.1S 160.0W 31 250 03m26s
 01079 13 -1555 Jul 22 16:35:55 36259 -43963 T -0.9162 1.0306 43.7S 81.0E 23 260 02m35s
 01119 14 -1537 Aug 03 00:14:13 35872 -43740 T -0.9713 1.0216 55.1S 42.3W 13 322 01m40s
 01159 15 -1519 Aug 13 07:59:47 35487 -43517 P -1.0198 0.9636 68.9S 176.9W 0
 01199 16 -1501 Aug 24 15:52:09 35105 -43294 P -1.0619 0.8833 69.9S 51.1E 0
 01239 17 -1483 Sep 03 23:53:00 34724 -43071 P -1.0963 0.8179 70.6S 83.7W 0
 01279 18 -1465 Sep 15 08:00:34 34346 -42848 P -1.1241 0.7653 71.2S 139.4E 0
 01320 19 -1447 Sep 25 16:14:53 33970 -42625 P -1.1457 0.7247 71.6S 0.2E 0
 01361 20 -1429 Oct 07 00:35:25 33595 -42402 P -1.1614 0.6953 71.7S 140.7W 0
 01402 21 -1411 Oct 17 09:01:51 33223 -42179 P -1.1718 0.6758 71.6S 76.9E 0
 01443 22 -1393 Oct 28 17:31:46 32853 -41956 P -1.1784 0.6633 71.2S 66.2W 0
 01484 23 -1375 Nov 08 02:03:59 32485 -41733 P -1.1825 0.6554 70.6S 150.7E 0
 01526 24 -1357 Nov 19 10:37:00 32119 -41510 P -1.1851 0.6502 69.7S 8.0E 0
 01568 25 -1339 Nov 29 19:09:57 31755 -41287 P -1.1873 0.6460 68.8S 134.1W 0
 01611 26 -1321 Dec 11 03:38:45 31393 -41064 P -1.1923 0.6371 67.7S 85.6E 0
 01655 27 -1303 Dec 21 12:04:22 31033 -40841 P -1.1992 0.6248 66.6S 53.4W 0
 01698 28 -1284 Jan 01 20:22:42 30676 -40618 P -1.2116 0.6030 65.5S 170.0E 0
 01743 29 -1266 Jan 12 04:35:06 30320 -40395 P -1.2280 0.5743 64.5S 35.4E 0
 01788 30 -1248 Jan 23 12:36:42 29966 -40172 P -1.2527 0.5310 63.6S 96.1W 0
 01833 31 -1230 Feb 02 20:30:49 29615 -39949 P -1.2827 0.4785 62.7S 134.5E 0
 01878 32 -1212 Feb 14 04:12:55 29266 -39726 P -1.3218 0.4101 62.0S 8.4E 0

----- -45 -2554 Oct 24 06:33:55 60916 -56316 P -1.4248 0.2096 60.7S 122.9W 0
 ----- -44 -2536 Nov 03 15:27:52 60415 -56093 P -1.4258 0.2079 60.9S 92.7E 0
 ----- -43 -2518 Nov 15 00:21:55 59915 -55870 P -1.4274 0.2049 61.3S 51.7W 0
 ----- -42 -2500 Nov 25 09:15:04 59418 -55647 P -1.4287 0.2023 61.9S 164.0E 0
 ----- -41 -2482 Dec 06 18:05:29 58923 -55424 P -1.4284 0.2028 62.6S 20.1E 0
 ----- -40 -2464 Dec 17 02:50:46 58430 -55201 P -1.4247 0.2094 63.4S 122.7W 0
 ----- -39 -2446 Dec 28 11:30:43 57939 -54978 P -1.4172 0.2231 64.3S 95.6E 0
 ----- -38 -2427 Jan 07 20:03:24 57450 -54755 P -1.4046 0.2464 65.3S 44.7W 0
 ----- -37 -2409 Jan 19 04:28:05 56963 -54532 P -1.3859 0.2811 66.4S 176.6E 0
 ----- -36 -2391 Jan 29 12:43:51 56478 -54309 P -1.3607 0.3285 67.4S 39.7E 0
 ----- -35 -2373 Feb 09 20:51:14 55995 -54086 P -1.3293 0.3878 68.4S 95.6W 0
 ----- -34 -2355 Feb 20 04:49:55 55514 -53863 P -1.2916 0.4592 69.3S 130.7E 0
 ----- -33 -2337 Mar 03 12:38:56 55035 -53640 P -1.2463 0.5452 70.1S 1.1W 0
 ----- -32 -2319 Mar 13 20:20:16 54559 -53417 P -1.1954 0.6421 70.8S 131.5W 0
 ----- -31 -2301 Mar 25 03:53:15 54084 -53194 P -1.1379 0.7514 71.2S 99.7E 0
 ----- -30 -2283 Apr 04 11:20:33 53612 -52971 P -1.0766 0.8679 71.5S 27.9W 0
 ----- -29 -2265 Apr 15 18:40:04 53141 -52748 P -1.0094 0.9949 71.5S 153.7W 0
 ----- -28 -2247 Apr 26 01:56:37 52673 -52525 T -0.9405 1.0412 59.2S 43.8E 19 410 02m49s
 ----- -27 -2229 May 07 09:08:09 52207 -52302 T -0.8678 1.0416 47.4S 79.8W 29 279 03m14s
 ----- -26 -2211 May 17 16:18:37 51743 -52079 T -0.7951 1.0403 37.4S 162.9E 37 221 03m28s
 ----- -25 -2193 May 28 23:26:42 51280 -51856 T -0.7211 1.0379 28.3S 48.6E 44 183 03m32s
 ----- -24 -2175 Jun 08 06:36:24 50820 -51633 T -0.6492 1.0345 20.4S 64.7W 49 153 03m27s
 ----- -23 -2157 Jun 19 13:47:07 50362 -51410 T -0.5789 1.0303 13.4S 177.2W 55 126 03m10s
 ----- -22 -2139 Jun 29 21:00:53 49907 -51187 T -0.5119 1.0254 7.5S 70.4E 59 100 02m45s
 ----- -21 -2121 Jul 11 04:18:53 49453 -50964 T -0.4491 1.0199 2.7S 42.4W 63 76 02m11s
 ----- -20 -2103 Jul 21 11:42:44 49001 -50741 H -0.3919 1.0140 0.8N 156.0W 67 52 01m32s
 ----- -19 -2085 Aug 01 19:12:55 48551 -50518 H -0.3408 1.0078 3.1N 89.3E 70 28 00m51s
 ----- -18 -2067 Aug 12 02:49:55 48104 -50295 H -0.2961 1.0013 4.1N 26.8W 73 5 00m08s

----- -17 -2049 Aug 23 10:34:20 47658 -50072 A -0.2583 0.9949 3.8N 144.7W 75 19 00m32s

----- -16 -2031 Sep 02 18:26:36 47215 -49849 A -0.2277 0.9885 2.4N 95.4E 77 42 01m11s

----- -15 -2013 Sep 14 02:25:27 46773 -49626 A -0.2034 0.9824 0.1N 26.2W 78 64 01m48s

00012 -14 -1995 Sep 24 10:31:54 46334 -49403 A -0.1863 0.9766 3.1S 150.0W 79 85 02m22s

00055 -13 -1977 Oct 05 18:43:53 45897 -49180 A -0.1747 0.9713 6.9S 84.7E 80 104 02m53s

00097 -12 -1959 Oct 16 03:01:44 45462 -48957 A -0.1688 0.9665 11.1S 42.0W 80 122 03m23s

00140 -11 -1941 Oct 27 11:21:18 45028 -48734 A -0.1649 0.9623 15.5S 169.1W 80 138 03m49s

00183 -10 -1923 Nov 06 19:44:18 44597 -48511 A -0.1649 0.9588 19.8S 63.2E 80 152 04m14s

00227 -09 -1905 Nov 18 04:06:24 44168 -48288 A -0.1653 0.9559 23.9S 63.9W 80 163 04m36s

00271 -08 -1887 Nov 28 12:27:35 43742 -48065 Am -0.1654 0.9537 27.4S 169.8E 80 171 04m54s

00317 -07 -1869 Dec 09 20:43:48 43317 -47842 A -0.1623 0.9521 30.1S 45.4E 80 178 05m11s

00364 -06 -1851 Dec 20 04:56:02 42894 -47619 A -0.1566 0.9511 31.8S 77.5W 81 181 05m24s

00410 -05 -1833 Dec 31 13:00:55 42473 -47396 A -0.1456 0.9506 32.3S 161.7E 81 183 05m35s

00455 -04 -1814 Jan 10 20:57:33 42055 -47173 A -0.1287 0.9506 31.3S 43.0E 82 183 05m43s

00501 -03 -1796 Jan 22 04:44:37 41638 -46950 A -0.1047 0.9509 29.0S 73.7W 84 181 05m49s

00547 -02 -1778 Feb 01 12:22:05 41224 -46727 A -0.0733 0.9516 25.4S 171.3E 86 178 05m53s

00592 -01 -1760 Feb 12 19:48:27 40811 -46504 A -0.0336 0.9523 20.5S 58.2E 88 175 05m54s

00637 00 -1742 Feb 23 03:04:13 40401 -46281 A 0.0142 0.9531 14.6S 53.0W 89 171 05m53s

00683 01 -1724 Mar 05 10:09:29 39993 -46058 A 0.0698 0.9538 7.9S 162.3W 86 169 05m50s

00729 02 -1706 Mar 16 17:05:16 39587 -45835 A 0.1323 0.9544 0.5S 90.1E 82 168 05m44s

00773 03 -1688 Mar 26 23:50:07 39183 -45612 A 0.2032 0.9547 7.6N 15.2W 78 169 05m37s

00817 04 -1670 Apr 07 06:27:44 38780 -45389 A 0.2792 0.9546 16.1N 119.0W 74 172 05m29s

00858 05 -1652 Apr 17 12:57:24 38381 -45166 A 0.3613 0.9542 25.1N 138.9E 69 179 05m19s

00899 06 -1634 Apr 28 19:23:02 37983 -44943 A 0.4456 0.9533 34.3N 37.9E 63 190 05m08s

00940 07 -1616 May 09 01:42:23 37587 -44720 A 0.5345 0.9518 43.9N 61.5W 57 208 04m57s

00981 08 -1598 May 20 08:01:43 37193 -44497 A 0.6228 0.9498 53.6N 160.5W 51 235 04m46s

01022 09 -1580 May 30 14:19:02 36801 -44274 A 0.7124 0.9472 63.7N 101.5E 44 278 04m35s

01063 10 -1562 Jun 10 20:38:45 36412 -44051 A 0.7993 0.9440 74.1N 4.0E 37 347 04m26s

01103	11	-1544	Jun 21	02:59:53	36024	-43828	A	0.8846	0.9399	85.4N	89.2W	27	485	04m19s
01143	12	-1526	Jul 02	09:27:03	35639	-43605	A	0.9646	0.9346	80.3N	14.8W	15	971	04m11s
01183	13	-1508	Jul 12	15:59:43	35256	-43382	P	1.0399	0.8917	65.0N	113.2W		0	
01223	14	-1490	Jul 23	22:39:19	34874	-43159	P	1.1094	0.7729	64.0N	135.5E		0	
01263	15	-1472	Aug 03	05:27:42	34495	-42936	P	1.1715	0.6673	63.2N	22.3E		0	
01303	16	-1454	Aug 14	12:25:20	34118	-42713	P	1.2259	0.5752	62.4N	93.0W		0	
01345	17	-1436	Aug 24	19:33:14	33743	-42490	P	1.2719	0.4976	61.7N	149.5E		0	
01386	18	-1418	Sep 05	02:49:50	33370	-42267	P	1.3109	0.4323	61.2N	29.9E		0	
01427	19	-1400	Sep 15	10:17:19	32999	-42044	P	1.3414	0.3816	60.8N	92.3W		0	
01468	20	-1382	Sep 26	17:53:21	32630	-41821	P	1.3651	0.3422	60.6N	143.5E		0	
01510	21	-1364	Oct 07	01:38:20	32263	-41598	P	1.3816	0.3149	60.6N	17.1E		0	
01552	22	-1346	Oct 18	09:30:13	31898	-41375	P	1.3929	0.2963	60.7N	111.0W		0	
01595	23	-1328	Oct 28	17:29:06	31536	-41152	P	1.3987	0.2867	61.0N	119.1E		0	
01638	24	-1310	Nov 09	01:31:57	31175	-40929	P	1.4018	0.2815	61.4N	11.9W		0	
01681	25	-1292	Nov 19	09:37:28	30817	-40706	P	1.4032	0.2788	62.0N	143.7W		0	
01726	26	-1274	Nov 30	17:43:47	30460	-40483	P	1.4043	0.2764	62.8N	84.2E		0	
01770	27	-1256	Dec 11	01:50:04	30106	-40260	P	1.4054	0.2739	63.7N	48.3W		0	
01816	28	-1238	Dec 22	09:52:16	29754	-40037	P	1.4105	0.2645	64.6N	180.0E		0	
01861	29	-1219	Jan 01	17:50:57	29403	-39814	P	1.4187	0.2496	65.7N	48.8E		0	
01905	30	-1201	Jan 13	01:42:58	29055	-39591	P	1.4327	0.2247	66.7N	81.3W		0	
01950	31	-1183	Jan 23	09:30:09	28709	-39368	P	1.4509	0.1921	67.8N	149.4E		0	
01996	32	-1165	Feb 03	17:07:22	28365	-39145	P	1.4773	0.1451	68.8N	22.1E		0	
02042	33	-1147	Feb 14	00:38:45	28023	-38922	P	1.5086	0.0890	69.7N	104.4W		0	
02088	34	-1129	Feb 25	08:00:19	27683	-38699	Pe	1.5482	0.0177	70.4N	131.0E		0	

SAROS SERIES

13

Saros series 13 contains 85 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----41	-2543	Sep 23	03:30:50	60613	-56181	Pb	1.5545	0.0121	71.0N	135.8E	0		
-----40	-2525	Oct 04	11:34:26	60112	-55958	P	1.5490	0.0238	71.4N	1.1W	0		
-----39	-2507	Oct 14	19:41:58	59614	-55735	P	1.5474	0.0286	71.5N	139.2W	0		
-----38	-2489	Oct 26	03:53:13	59118	-55512	P	1.5494	0.0270	71.3N	81.8E	0		
-----37	-2471	Nov 05	12:05:37	58624	-55289	P	1.5526	0.0230	70.9N	57.2W	0		
-----36	-2453	Nov 16	20:17:56	58132	-55066	P	1.5566	0.0174	70.3N	164.3E	0		
-----35	-2435	Nov 27	04:26:44	57642	-54843	P	1.5581	0.0155	69.5N	27.2E	0		
-----34	-2417	Dec 08	12:32:28	57154	-54620	P	1.5578	0.0165	68.5N	108.5W	0		
-----33	-2399	Dec 18	20:32:07	56669	-54397	P	1.5527	0.0250	67.5N	118.0E	0		
-----32	-2381	Dec 30	04:24:07	56185	-54174	P	1.5421	0.0428	66.4N	13.0W	0		
-----31	-2362	Jan 09	12:07:11	55704	-53951	P	1.5245	0.0720	65.4N	141.2W	0		
-----30	-2344	Jan 20	19:41:00	55224	-53728	P	1.4998	0.1131	64.4N	93.3E	0		
-----29	-2326	Jan 31	03:04:47	54747	-53505	P	1.4673	0.1675	63.5N	29.3W	0		
-----28	-2308	Feb 11	10:17:31	54271	-53282	P	1.4259	0.2369	62.6N	148.9W	0		

----- -27 -2290 Feb 21 17:20:16 53798 -53059 P 1.3766 0.3201 61.9N 94.3E 0
 ----- -26 -2272 Mar 04 00:12:52 53327 -52836 P 1.3192 0.4173 61.3N 19.8W 0
 ----- -25 -2254 Mar 15 06:55:35 52858 -52613 P 1.2539 0.5284 60.9N 131.3W 0
 ----- -24 -2236 Mar 25 13:30:00 52390 -52390 P 1.1816 0.6518 60.6N 119.4E 0
 ----- -23 -2218 Apr 05 19:57:20 51926 -52167 P 1.1035 0.7853 60.4N 12.0E 0
 ----- -22 -2200 Apr 16 02:19:38 51463 -51944 P 1.0210 0.9267 60.4N 94.2W 0
 ----- -21 -2182 Apr 27 08:36:06 51002 -51721 A 0.9335 0.9399 59.1N 157.5W 21 614 04m36s
 ----- -20 -2164 May 07 14:51:50 50543 -51498 A 0.8451 0.9429 57.2N 120.8E 32 387 04m37s
 ----- -19 -2146 May 18 21:05:28 50086 -51275 A 0.7548 0.9449 55.8N 35.4E 41 305 04m39s
 ----- -18 -2128 May 29 03:21:43 49632 -51052 A 0.6659 0.9461 54.6N 52.1W 48 264 04m45s
 ----- -17 -2110 Jun 09 09:38:36 49179 -50829 A 0.5770 0.9467 52.9N 140.5W 55 239 04m55s
 ----- -16 -2092 Jun 19 16:02:27 48729 -50606 A 0.4932 0.9466 50.6N 128.3E 60 225 05m11s
 ----- -15 -2074 Jun 30 22:30:51 48280 -50383 A 0.4128 0.9462 47.6N 35.0E 65 218 05m31s
 ----- -14 -2056 Jul 11 05:07:40 47834 -50160 A 0.3389 0.9454 43.8N 61.7W 70 214 05m54s
 ----- -13 -2038 Jul 22 11:52:20 47389 -49937 A 0.2708 0.9442 39.4N 161.6W 74 214 06m20s
 ----- -12 -2020 Aug 01 18:48:10 46947 -49714 A 0.2113 0.9429 34.6N 94.5E 78 216 06m45s
 ----- -11 -2002 Aug 13 01:53:21 46507 -49491 A 0.1591 0.9415 29.4N 12.6W 81 219 07m08s
 00037 -10 -1984 Aug 23 09:09:06 46069 -49268 A 0.1151 0.9402 24.0N 123.1W 83 223 07m27s
 00080 -09 -1966 Sep 03 16:35:18 45633 -49045 A 0.0794 0.9390 18.5N 123.3E 85 227 07m41s
 00123 -08 -1948 Sep 14 00:12:27 45199 -48822 A 0.0521 0.9380 13.1N 6.6E 87 231 07m50s
 00166 -07 -1930 Sep 25 07:58:25 44767 -48599 A 0.0317 0.9374 7.7N 112.5W 88 233 07m55s
 00209 -06 -1912 Oct 05 15:53:35 44337 -48376 A 0.0182 0.9371 2.4N 126.0E 89 234 07m55s
 00253 -05 -1894 Oct 16 23:55:45 43910 -48153 A 0.0099 0.9375 2.5S 2.9E 89 232 07m51s
 00298 -04 -1876 Oct 27 08:04:34 43484 -47930 A 0.0064 0.9384 7.2S 121.6W 90 229 07m43s
 00345 -03 -1858 Nov 07 16:16:01 43061 -47707 A 0.0044 0.9400 11.5S 113.4E 90 222 07m30s
 00391 -02 -1840 Nov 18 00:31:24 42639 -47484 A 0.0048 0.9422 15.3S 12.2W 90 214 07m13s
 00437 -01 -1822 Nov 29 08:46:06 42220 -47261 A 0.0036 0.9451 18.6S 137.2W 90 202 06m49s
 00483 00 -1804 Dec 09 17:00:35 41802 -47038 A 0.0015 0.9487 21.3S 98.2E 90 188 06m18s

00530 01 -1786 Dec 21 01:10:23 41387 -46815 Am -0.0054 0.9529 23.5S 25.0W 90 172 05m41s
 00575 02 -1768 Dec 31 09:17:22 40974 -46592 A -0.0155 0.9578 24.9S 147.1W 89 154 04m59s
 00620 03 -1749 Jan 11 17:17:46 40563 -46369 A -0.0323 0.9631 25.7S 92.6E 88 133 04m13s
 00665 04 -1731 Jan 22 01:11:38 40154 -46146 A -0.0552 0.9690 25.9S 26.0W 87 112 03m25s
 00712 05 -1713 Feb 02 08:57:33 39747 -45923 A -0.0858 0.9750 25.6S 142.5W 85 90 02m39s
 00756 06 -1695 Feb 12 16:36:30 39342 -45700 A -0.1229 0.9814 24.9S 102.6E 83 67 01m54s
 00800 07 -1677 Feb 24 00:07:48 38939 -45477 A -0.1674 0.9877 23.8S 10.5W 80 44 01m12s
 00841 08 -1659 Mar 06 07:31:35 38538 -45254 A -0.2191 0.9941 22.6S 121.8W 77 21 00m34s
 00882 09 -1641 Mar 17 14:48:59 38139 -45031 H -0.2772 1.0002 21.5S 128.4E 74 1 00m01s
 00923 10 -1623 Mar 27 22:00:44 37743 -44808 H -0.3407 1.0060 20.5S 19.9E 70 22 00m33s
 00964 11 -1605 Apr 08 05:07:38 37348 -44585 H -0.4092 1.0114 19.9S 87.5W 66 43 01m02s
 01006 12 -1587 Apr 18 12:11:17 36956 -44362 T -0.4816 1.0163 19.9S 165.7E 61 63 01m29s
 01047 13 -1569 Apr 29 19:13:12 36565 -44139 T -0.5562 1.0205 20.7S 59.2E 56 83 01m52s
 01088 14 -1551 May 10 02:15:08 36177 -43916 T -0.6318 1.0240 22.4S 47.5W 51 103 02m12s
 01128 15 -1533 May 21 09:16:51 35791 -43693 T -0.7085 1.0266 25.3S 154.5W 45 125 02m27s
 01167 16 -1515 May 31 16:22:02 35407 -43470 T -0.7831 1.0283 29.5S 97.2E 38 152 02m35s
 01207 17 -1497 Jun 11 23:29:47 35024 -43247 T -0.8561 1.0290 35.4S 12.2W 31 189 02m35s
 01247 18 -1479 Jun 22 06:43:32 34644 -43024 T -0.9253 1.0285 43.6S 123.6W 22 256 02m24s
 01287 19 -1461 Jul 03 14:01:38 34266 -42801 Ts -0.9914 1.0252 59.2S 124.8E 6 - 01m52s
 01328 20 -1443 Jul 13 21:28:21 33891 -42578 P -1.0510 0.9110 66.2S 4.6E 0
 01369 21 -1425 Jul 25 05:02:03 33517 -42355 P -1.1054 0.8092 67.2S 121.2W 0
 01410 22 -1407 Aug 04 12:44:32 33145 -42132 P -1.1531 0.7196 68.2S 110.3E 0
 01451 23 -1389 Aug 15 20:35:54 32775 -41909 P -1.1942 0.6423 69.2S 21.0W 0
 01493 24 -1371 Aug 26 04:36:55 32408 -41686 P -1.2282 0.5786 70.0S 155.2W 0
 01535 25 -1353 Sep 06 12:47:14 32042 -41463 P -1.2549 0.5283 70.7S 67.6E 0
 01577 26 -1335 Sep 16 21:05:33 31679 -41240 P -1.2758 0.4892 71.2S 72.0W 0
 01620 27 -1317 Sep 28 05:33:18 31317 -41017 P -1.2897 0.4632 71.5S 145.6E 0
 01664 28 -1299 Oct 08 14:08:14 30958 -40794 P -1.2986 0.4466 71.6S 1.2E 0

01708 29 -1281 Oct 19 22:50:18 30601 -40571 P -1.3024 0.4395 71.4S 145.0W 0
 01752 30 -1263 Oct 30 07:36:36 30245 -40348 P -1.3035 0.4376 70.9S 68.2E 0
 01798 31 -1245 Nov 10 16:27:38 29892 -40125 P -1.3014 0.4415 70.2S 79.4W 0
 01843 32 -1227 Nov 21 01:19:49 29541 -39902 P -1.2990 0.4460 69.4S 133.4E 0
 01888 33 -1209 Dec 02 10:12:32 29192 -39679 P -1.2967 0.4503 68.4S 13.4W 0
 01933 34 -1191 Dec 12 19:03:24 28845 -39456 P -1.2966 0.4505 67.4S 159.0W 0
 01978 35 -1173 Dec 24 03:51:48 28501 -39233 P -1.2990 0.4458 66.3S 56.5E 0
 02025 36 -1154 Jan 03 12:34:37 28158 -39010 P -1.3063 0.4320 65.3S 86.0W 0
 02071 37 -1136 Jan 14 21:12:03 27817 -38787 P -1.3183 0.4091 64.3S 133.2E 0
 02116 38 -1118 Jan 25 05:42:04 27478 -38564 P -1.3367 0.3740 63.4S 5.3W 0
 02161 39 -1100 Feb 05 14:05:47 27142 -38341 P -1.3608 0.3277 62.6S 142.0W 0
 02204 40 -1082 Feb 15 22:19:32 26808 -38118 P -1.3931 0.2654 62.0S 84.0E 0
 02247 41 -1064 Feb 27 06:26:48 26475 -37895 P -1.4309 0.1921 61.5S 48.2W 0
 02290 42 -1046 Mar 09 14:24:39 26145 -37672 P -1.4765 0.1036 61.1S 177.9W 0
 02334 43 -1028 Mar 19 22:16:58 25817 -37449 Pe -1.5268 0.0054 60.9S 53.9E 0

SAROS SERIES

14

Saros series 14 contains 85 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

-----	-37	-2550	Aug 11	16:44:05	60811	-56269	Pb	-1.5142	0.0797	63.1S	143.5E	0	
-----	-36	-2532	Aug 22	00:12:58	60309	-56046	P	-1.4725	0.1518	62.3S	19.9E	0	
-----	-35	-2514	Sep 02	07:52:53	59811	-55823	P	-1.4389	0.2100	61.6S	106.3W	0	
-----	-34	-2496	Sep 12	15:43:14	59314	-55600	P	-1.4125	0.2555	61.1S	125.2E	0	
-----	-33	-2478	Sep 23	23:42:31	58819	-55377	P	-1.3925	0.2901	60.7S	5.4W	0	
-----	-32	-2460	Oct 04	07:50:33	58326	-55154	P	-1.3785	0.3140	60.5S	138.2W	0	
-----	-31	-2442	Oct 15	16:05:37	57835	-54931	P	-1.3694	0.3295	60.4S	87.4E	0	
-----	-30	-2424	Oct 26	00:25:29	57347	-54708	P	-1.3635	0.3394	60.6S	48.2W	0	
-----	-29	-2406	Nov 06	08:49:19	56860	-54485	P	-1.3600	0.3451	60.9S	175.1E	0	
-----	-28	-2388	Nov 16	17:14:24	56376	-54262	P	-1.3567	0.3503	61.3S	38.0E	0	
-----	-27	-2370	Nov 28	01:40:06	55893	-54039	P	-1.3529	0.3562	61.9S	99.4W	0	
-----	-26	-2352	Dec 08	10:02:36	55413	-53816	P	-1.3459	0.3679	62.7S	123.8E	0	
-----	-25	-2334	Dec 19	18:23:08	54935	-53593	P	-1.3363	0.3840	63.6S	12.7W	0	
-----	-24	-2316	Dec 30	02:37:44	54459	-53370	P	-1.3216	0.4094	64.6S	148.1W	0	
-----	-23	-2297	Jan 10	10:46:48	53984	-53147	P	-1.3012	0.4449	65.6S	77.5E	0	
-----	-22	-2279	Jan 20	18:47:59	53512	-52924	P	-1.2737	0.4939	66.7S	55.3W	0	
-----	-21	-2261	Feb 01	02:42:54	53042	-52701	P	-1.2403	0.5539	67.7S	172.9E	0	
-----	-20	-2243	Feb 11	10:30:04	52575	-52478	P	-1.1998	0.6277	68.7S	42.5E	0	
-----	-19	-2225	Feb 22	18:09:26	52109	-52255	P	-1.1522	0.7155	69.6S	86.4W	0	
-----	-18	-2207	Mar 05	01:41:44	51645	-52032	P	-1.0979	0.8168	70.4S	145.8E	0	
-----	-17	-2189	Mar 16	09:07:56	51183	-51809	P	-1.0375	0.9304	71.1S	19.0E	0	
-----	-16	-2171	Mar 26	16:28:48	50724	-51586	T	-0.9718	1.0206	71.0S	147.6W	13 312 01m15s	

-----15 -2153 Apr 06 23:44:57 50266 -51363 T -0.9014 1.0296 60.1S 69.6E 25 232 02m03s
 -----14 -2135 Apr 17 06:58:36 49811 -51140 T -0.8277 1.0370 49.3S 53.3W 34 220 02m49s
 -----13 -2117 Apr 28 14:10:41 49357 -50917 T -0.7516 1.0431 39.2S 170.9W 41 216 03m33s
 -----12 -2099 May 08 21:21:47 48906 -50694 T -0.6736 1.0483 29.7S 73.8E 47 216 04m16s
 -----11 -2081 May 20 04:34:08 48457 -50471 T -0.5957 1.0525 20.9S 40.5W 53 215 04m53s
 -----10 -2063 May 30 11:48:26 48010 -50248 T -0.5184 1.0559 12.9S 154.3W 59 215 05m23s
 -----09 -2045 Jun 10 19:07:24 47565 -50025 T -0.4442 1.0583 5.7S 91.6E 64 214 05m44s
 -----08 -2027 Jun 21 02:29:23 47122 -49802 T -0.3718 1.0599 0.7N 22.5W 68 212 05m55s
 -----07 -2009 Jul 02 09:59:02 46681 -49579 T -0.3050 1.0606 5.9N 137.7W 72 209 05m57s
 00021 -06 -1991 Jul 12 17:34:12 46242 -49356 T -0.2421 1.0606 10.0N 106.3E 76 205 05m50s
 00064 -05 -1973 Jul 24 01:18:22 45805 -49133 T -0.1865 1.0601 12.9N 11.3W 79 201 05m38s
 00107 -04 -1955 Aug 03 09:08:54 45370 -48910 T -0.1359 1.0589 14.5N 130.1W 82 196 05m22s
 00150 -03 -1937 Aug 14 17:09:41 44937 -48687 T -0.0934 1.0574 14.8N 108.7E 85 190 05m05s
 00193 -02 -1919 Aug 25 01:18:07 44507 -48464 T -0.0570 1.0556 13.9N 14.5W 87 184 04m49s
 00237 -01 -1901 Sep 05 09:35:37 44078 -48241 T -0.0279 1.0537 12.0N 140.2W 88 178 04m33s
 00281 00 -1883 Sep 15 18:00:59 43652 -48018 T -0.0050 1.0518 9.2N 91.9E 90 172 04m20s
 00327 01 -1865 Sep 27 02:35:16 43227 -47795 T 0.0102 1.0500 5.6N 38.6W 89 166 04m09s
 00373 02 -1847 Oct 07 11:15:47 42805 -47572 T 0.0209 1.0485 1.7N 170.8W 89 161 04m01s
 00419 03 -1829 Oct 18 20:01:55 42385 -47349 T 0.0269 1.0472 2.6S 55.4E 88 157 03m56s
 00464 04 -1811 Oct 29 04:52:15 41967 -47126 T 0.0298 1.0464 6.8S 79.3W 88 155 03m53s
 00511 05 -1793 Nov 09 13:46:13 41551 -46903 Tm 0.0296 1.0461 11.0S 145.2E 88 153 03m54s
 00557 06 -1775 Nov 19 22:40:15 41137 -46680 T 0.0296 1.0462 14.7S 10.0E 88 154 03m58s
 00602 07 -1757 Dec 01 07:34:28 40725 -46457 T 0.0292 1.0468 17.8S 124.9W 88 156 04m05s
 00647 08 -1739 Dec 11 16:25:31 40315 -46234 T 0.0317 1.0479 20.1S 101.4E 88 159 04m15s
 00693 09 -1721 Dec 23 01:13:39 39907 -46011 T 0.0364 1.0494 21.3S 31.3W 88 164 04m27s
 00739 10 -1702 Jan 02 09:54:44 39501 -45788 T 0.0469 1.0512 21.3S 162.1W 87 170 04m40s
 00783 11 -1684 Jan 13 18:30:49 39098 -45565 T 0.0613 1.0533 20.2S 68.2E 87 177 04m55s
 00825 12 -1666 Jan 24 02:58:13 38696 -45342 T 0.0825 1.0554 17.7S 59.6W 85 184 05m10s

00866	13	-1648	Feb 04	11:17:57	38296	-45119	T	0.1102	1.0577	14.1S	173.9E	84	191	05m24s
00907	14	-1630	Feb 14	19:28:09	37899	-44896	T	0.1455	1.0597	9.4S	49.2E	82	198	05m35s
00948	15	-1612	Feb 26	03:30:45	37504	-44673	T	0.1870	1.0616	3.7S	74.2W	79	206	05m44s
00989	16	-1594	Mar 08	11:24:32	37110	-44450	T	0.2355	1.0630	2.7N	164.0E	76	212	05m48s
01031	17	-1576	Mar 18	19:09:49	36719	-44227	T	0.2909	1.0640	9.8N	43.8E	73	218	05m47s
01072	18	-1558	Mar 30	02:47:55	36330	-44004	T	0.3520	1.0642	17.5N	74.9W	69	224	05m39s
01112	19	-1540	Apr 09	10:19:32	35943	-43781	T	0.4183	1.0638	25.7N	167.7E	65	229	05m25s
01152	20	-1522	Apr 20	17:45:50	35558	-43558	T	0.4886	1.0625	34.2N	51.5E	61	234	05m05s
01192	21	-1504	May 01	01:06:51	35175	-43335	T	0.5627	1.0604	43.0N	63.5W	56	239	04m40s
01232	22	-1486	May 12	08:25:29	34794	-43112	T	0.6384	1.0573	52.2N	177.8W	50	245	04m10s
01272	23	-1468	May 22	15:41:36	34415	-42889	T	0.7155	1.0533	61.6N	68.7E	44	253	03m37s
01312	24	-1450	Jun 02	22:56:37	34039	-42666	T	0.7928	1.0482	71.4N	44.6W	37	265	03m03s
01353	25	-1432	Jun 13	06:11:50	33664	-42443	T	0.8691	1.0420	81.9N	159.8W	29	288	02m28s
01394	26	-1414	Jun 24	13:28:59	33291	-42220	T	0.9429	1.0344	85.6N	71.0W	19	358	01m52s
01435	27	-1396	Jul 04	20:49:24	32921	-41997	P	1.0130	0.9822	65.7N	171.2E	0		
01476	28	-1378	Jul 16	04:12:53	32552	-41774	P	1.0796	0.8554	64.7N	48.7E	0		
01518	29	-1360	Jul 26	11:42:29	32186	-41551	P	1.1403	0.7409	63.7N	75.0W	0		
01560	30	-1342	Aug 06	19:17:49	31822	-41328	P	1.1956	0.6377	62.9N	160.2E	0		
01603	31	-1324	Aug 17	03:00:16	31459	-41105	P	1.2441	0.5482	62.2N	33.9E	0		
01647	32	-1306	Aug 28	10:49:16	31099	-40882	P	1.2864	0.4711	61.6N	93.9W	0		
01690	33	-1288	Sep 07	18:46:24	30741	-40659	P	1.3215	0.4079	61.1N	136.5E	0		
01735	34	-1270	Sep 19	02:50:50	30385	-40436	P	1.3499	0.3575	60.8N	5.1E	0		
01780	35	-1252	Sep 29	11:01:28	30031	-40213	P	1.3727	0.3176	60.6N	127.7W	0		
01825	36	-1234	Oct 10	19:19:02	29680	-39990	P	1.3892	0.2894	60.6N	97.8E	0		
01870	37	-1216	Oct 21	03:41:34	29330	-39767	P	1.4006	0.2702	60.8N	37.9W	0		
01915	38	-1198	Nov 01	12:08:31	28982	-39544	P	1.4082	0.2579	61.1N	174.8W	0		
01960	39	-1180	Nov 11	20:35:55	28636	-39321	P	1.4146	0.2475	61.7N	48.1E	0		
02006	40	-1162	Nov 23	05:05:13	28293	-39098	P	1.4187	0.2411	62.3N	89.7W	0		

02052 41 -1144 Dec 03 13:32:19 27951 -38875 P 1.4236 0.2332 63.1N 132.9E 0
02098 42 -1126 Dec 14 21:56:41 27612 -38652 P 1.4299 0.2226 64.0N 4.1W 0
02143 43 -1108 Dec 25 06:15:08 27274 -38429 P 1.4400 0.2055 65.0N 139.9W 0
02186 44 -1089 Jan 05 14:28:00 26939 -38206 P 1.4539 0.1815 66.1N 85.2E 0
02229 45 -1071 Jan 15 22:32:21 26606 -37983 P 1.4737 0.1473 67.2N 48.0W 0
02272 46 -1053 Jan 27 06:27:42 26275 -37760 P 1.4997 0.1020 68.2N 179.5W 0
02315 47 -1035 Feb 06 14:13:01 25946 -37537 Pe 1.5329 0.0444 69.2N 50.9E 0

SAROS SERIES

15

Saros series 15 contains 75 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-40	-2557	Jul 01	06:54:37	61009	-56357	Pb	1.5243	0.0095	64.2N	175.9E	0	
-----	-39	-2539	Jul 11	14:36:14	60507	-56134	P	1.4660	0.1226	65.1N	48.5E	0	
-----	-38	-2521	Jul 22	22:24:28	60007	-55911	P	1.4132	0.2250	66.1N	81.0W	0	

----- -37 -2503 Aug 02 06:21:18 59509 -55688 P 1.3675 0.3132 67.1N 146.9E 0
 ----- -36 -2485 Aug 13 14:26:08 59014 -55465 P 1.3287 0.3880 68.1N 12.3E 0
 ----- -35 -2467 Aug 23 22:39:22 58520 -55242 P 1.2968 0.4491 69.1N 124.9W 0
 ----- -34 -2449 Sep 04 07:00:41 58029 -55019 P 1.2718 0.4968 69.9N 95.2E 0
 ----- -33 -2431 Sep 14 15:30:38 57539 -54796 P 1.2539 0.5305 70.7N 47.4W 0
 ----- -32 -2413 Sep 26 00:07:26 57052 -54573 P 1.2422 0.5526 71.2N 167.7E 0
 ----- -31 -2395 Oct 06 08:49:53 56567 -54350 P 1.2354 0.5652 71.5N 21.0E 0
 ----- -30 -2377 Oct 17 17:37:37 56083 -54127 P 1.2332 0.5693 71.5N 127.2W 0
 ----- -29 -2359 Oct 28 02:29:23 55602 -53904 P 1.2344 0.5670 71.3N 83.8E 0
 ----- -28 -2341 Nov 08 11:22:30 55123 -53681 P 1.2371 0.5619 70.8N 65.3W 0
 ----- -27 -2323 Nov 18 20:15:49 54646 -53458 P 1.2402 0.5559 70.1N 146.1E 0
 ----- -26 -2305 Nov 30 05:07:25 54171 -53235 P 1.2424 0.5519 69.2N 1.4W 0
 ----- -25 -2287 Dec 10 13:56:40 53698 -53012 P 1.2431 0.5507 68.2N 147.7W 0
 ----- -24 -2269 Dec 21 22:39:31 53228 -52789 P 1.2390 0.5585 67.2N 68.3E 0
 ----- -23 -2250 Jan 01 07:17:30 52759 -52566 P 1.2315 0.5727 66.1N 74.0W 0
 ----- -22 -2232 Jan 12 15:46:39 52292 -52343 P 1.2172 0.5997 65.1N 146.4E 0
 ----- -21 -2214 Jan 23 00:08:45 51828 -52120 P 1.1980 0.6361 64.1N 9.0E 0
 ----- -20 -2196 Feb 03 08:20:12 51365 -51897 P 1.1705 0.6879 63.2N 125.4W 0
 ----- -19 -2178 Feb 13 16:24:04 50905 -51674 P 1.1375 0.7504 62.4N 102.4E 0
 ----- -18 -2160 Feb 25 00:17:22 50446 -51451 P 1.0963 0.8282 61.8N 27.0W 0
 ----- -17 -2142 Mar 07 08:02:04 49990 -51228 P 1.0486 0.9183 61.2N 154.1W 0
 ----- -16 -2124 Mar 17 15:37:30 49536 -51005 Tn 0.9940 1.0313 59.3N 90.2E 5 - 01m57s
 ----- -15 -2106 Mar 28 23:06:05 49084 -50782 T 0.9343 1.0356 52.3N 7.1W 20 331 02m24s
 ----- -14 -2088 Apr 08 06:27:24 48634 -50559 T 0.8690 1.0370 49.4N 113.6W 29 246 02m33s
 ----- -13 -2070 Apr 19 13:42:36 48186 -50336 T 0.7993 1.0372 48.0N 140.0E 37 204 02m37s
 ----- -12 -2052 Apr 29 20:53:19 47740 -50113 T 0.7265 1.0364 47.4N 34.5E 43 175 02m37s
 ----- -11 -2034 May 11 04:00:32 47296 -49890 T 0.6517 1.0346 47.1N 69.9W 49 152 02m33s
 ----- -10 -2016 May 21 11:05:23 46854 -49667 T 0.5755 1.0319 46.8N 173.5W 55 131 02m26s

00003 -09 -1998 Jun 01 18:09:16 46415 -49444 T 0.4994 1.0284 46.2N 83.4E 60 111 02m15s
00046 -08 -1980 Jun 12 01:14:01 45977 -49221 T 0.4248 1.0242 45.0N 19.9W 65 91 02m00s
00089 -07 -1962 Jun 23 08:20:59 45541 -48998 T 0.3533 1.0193 43.0N 124.2W 69 71 01m41s
00132 -06 -1944 Jul 03 15:30:05 45108 -48775 H 0.2846 1.0139 40.3N 130.4E 73 50 01m16s
00175 -05 -1926 Jul 14 22:44:43 44677 -48552 H 0.2216 1.0079 36.8N 22.8E 77 28 00m46s
00219 -04 -1908 Jul 25 06:03:48 44247 -48329 H 0.1634 1.0017 32.7N 86.7W 80 6 00m10s
00263 -03 -1890 Aug 05 13:30:29 43820 -48106 Am 0.1125 0.9952 28.1N 161.0E 83 17 00m30s
00308 -02 -1872 Aug 15 21:02:20 43395 -47883 A 0.0669 0.9887 23.1N 46.6E 86 40 01m14s
00355 -01 -1854 Aug 27 04:43:27 42972 -47660 A 0.0302 0.9822 17.9N 70.6W 88 63 01m59s
00401 00 -1836 Sep 06 12:30:48 42550 -47437 A -0.0004 0.9759 12.6N 170.3E 90 86 02m45s
00446 01 -1818 Sep 17 20:26:38 42132 -47214 A -0.0232 0.9700 7.3N 48.8E 89 108 03m28s
00492 02 -1800 Sep 28 04:28:25 41715 -46991 A -0.0402 0.9644 2.0N 74.3W 88 129 04m09s
00539 03 -1782 Oct 09 12:37:27 41300 -46768 A -0.0506 0.9593 3.1S 160.8E 87 148 04m46s
00584 04 -1764 Oct 19 20:50:22 40887 -46545 A -0.0567 0.9548 8.0S 35.2E 87 165 05m20s
00629 05 -1746 Oct 31 05:06:38 40476 -46322 A -0.0594 0.9510 12.5S 91.0W 87 180 05m50s
00675 06 -1728 Nov 10 13:24:24 40068 -46099 A -0.0600 0.9478 16.6S 142.8E 86 192 06m17s
00722 07 -1710 Nov 21 21:42:44 39661 -45876 A -0.0598 0.9453 20.3S 16.8E 86 202 06m38s
00766 08 -1692 Dec 02 05:58:03 39257 -45653 A -0.0611 0.9435 23.4S 107.9W 86 209 06m54s
00810 09 -1674 Dec 13 14:09:35 38854 -45430 A -0.0650 0.9423 25.9S 128.7E 86 214 07m04s
00850 10 -1656 Dec 23 22:15:04 38454 -45207 A -0.0731 0.9417 27.8S 7.1E 86 216 07m06s
00891 11 -1637 Jan 04 06:14:24 38056 -44984 A -0.0858 0.9417 28.9S 112.6W 85 217 07m01s
00932 12 -1619 Jan 14 14:03:27 37659 -44761 A -0.1063 0.9420 29.6S 130.5E 84 216 06m51s
00973 13 -1601 Jan 25 21:44:24 37265 -44538 A -0.1330 0.9427 29.6S 15.6E 82 214 06m36s
01014 14 -1583 Feb 05 05:13:52 36873 -44315 A -0.1687 0.9436 29.1S 96.4W 80 211 06m20s
01055 15 -1565 Feb 16 12:34:13 36483 -44092 A -0.2112 0.9446 28.3S 153.7E 78 209 06m04s
01096 16 -1547 Feb 26 19:42:22 36095 -43869 A -0.2636 0.9456 27.4S 46.9E 75 207 05m49s
01136 17 -1529 Mar 10 02:41:53 35710 -43646 A -0.3224 0.9466 26.4S 58.0W 71 206 05m38s
01176 18 -1511 Mar 20 09:30:47 35326 -43423 A -0.3896 0.9473 25.6S 160.2W 67 208 05m31s

01216 19 -1493 Mar 31 16:11:09 34944 -43200 A -0.4632 0.9478 25.3S 99.6E 62 213 05m27s
 01256 20 -1475 Apr 10 22:43:34 34565 -42977 A -0.5427 0.9478 25.7S 1.3E 57 223 05m30s
 01296 21 -1457 Apr 22 05:10:13 34187 -42754 A -0.6262 0.9475 27.0S 95.6W 51 241 05m36s
 01337 22 -1439 May 02 11:32:15 33812 -42531 A -0.7131 0.9465 29.6S 168.6E 44 273 05m46s
 01378 23 -1421 May 13 17:50:05 33438 -42308 A -0.8027 0.9448 34.0S 73.9E 36 331 05m56s
 01419 24 -1403 May 24 00:07:06 33067 -42085 A -0.8922 0.9421 41.0S 20.1W 27 463 06m02s
 01460 25 -1385 Jun 04 06:23:36 32698 -41862 As -0.9813 0.9373 54.5S 109.8W 10 - 05m51s
 01502 26 -1367 Jun 14 12:42:35 32330 -41639 P -1.0678 0.8463 63.6S 156.2E 0
 01544 27 -1349 Jun 25 19:04:07 31965 -41416 P -1.1519 0.7023 64.6S 49.5E 0
 01587 28 -1331 Jul 06 01:32:17 31602 -41193 P -1.2301 0.5686 65.5S 59.1W 0
 01630 29 -1313 Jul 17 08:06:34 31241 -40970 P -1.3027 0.4449 66.6S 169.6W 0
 01674 30 -1295 Jul 27 14:48:52 30882 -40747 P -1.3687 0.3330 67.6S 77.4E 0
 01718 31 -1277 Aug 07 21:40:06 30526 -40524 P -1.4274 0.2340 68.6S 38.4W 0
 01762 32 -1259 Aug 18 04:41:25 30171 -40301 P -1.4779 0.1492 69.5S 157.3W 0
 01808 33 -1241 Aug 29 11:53:01 29818 -40078 P -1.5203 0.0785 70.3S 80.7E 0
 01853 34 -1223 Sep 08 19:14:20 29468 -39855 Pe -1.5551 0.0209 71.0S 44.3W 0

SAROS SERIES

16

Saros series 16 contains 85 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

-----	-34	-2456	Jul 23	23:07:52	58222	-55107	Pb	-1.5213	0.0589	64.6S	52.5E	0
-----	-33	-2438	Aug 04	06:23:04	57732	-54884	P	-1.4753	0.1420	63.7S	68.2W	0
-----	-32	-2420	Aug 14	13:46:18	57244	-54661	P	-1.4363	0.2121	62.9S	169.4E	0
-----	-31	-2402	Aug 25	21:17:15	56758	-54438	P	-1.4039	0.2699	62.1S	45.4E	0
-----	-30	-2384	Sep 05	04:56:47	56274	-54215	P	-1.3788	0.3143	61.5S	80.5W	0
-----	-29	-2366	Sep 16	12:43:01	55792	-53992	P	-1.3596	0.3481	61.0S	152.1E	0
-----	-28	-2348	Sep 26	20:37:05	55312	-53769	P	-1.3469	0.3705	60.7S	22.9E	0
-----	-27	-2330	Oct 08	04:36:29	54834	-53546	P	-1.3388	0.3847	60.5S	107.6W	0
-----	-26	-2312	Oct 18	12:40:37	54358	-53323	P	-1.3351	0.3914	60.5S	120.7E	0
-----	-25	-2294	Oct 29	20:47:33	53885	-53100	P	-1.3341	0.3935	60.7S	11.6W	0
-----	-24	-2276	Nov 09	04:56:27	53413	-52877	P	-1.3353	0.3917	61.1S	144.6W	0
-----	-23	-2258	Nov 20	13:04:10	52944	-52654	P	-1.3358	0.3909	61.6S	82.7E	0
-----	-22	-2240	Nov 30	21:09:15	52476	-52431	P	-1.3346	0.3930	62.2S	49.5W	0
-----	-21	-2222	Dec 12	05:09:48	52011	-52208	P	-1.3303	0.4001	63.1S	179.2E	0
-----	-20	-2204	Dec 22	13:05:11	51547	-51985	P	-1.3226	0.4129	64.0S	48.9E	0
-----	-19	-2185	Jan 02	20:51:23	51086	-51762	P	-1.3078	0.4374	65.0S	79.4W	0
-----	-18	-2167	Jan 13	04:29:58	50627	-51539	P	-1.2873	0.4715	66.0S	153.7E	0
-----	-17	-2149	Jan 24	11:57:47	50170	-51316	P	-1.2584	0.5200	67.1S	29.2E	0
-----	-16	-2131	Feb 03	19:17:32	49715	-51093	P	-1.2231	0.5793	68.1S	93.9W	0
-----	-15	-2113	Feb 15	02:24:22	49262	-50870	P	-1.1776	0.6561	69.1S	145.7E	0
-----	-14	-2095	Feb 25	09:23:35	48811	-50647	P	-1.1260	0.7437	70.0S	26.6E	0
-----	-13	-2077	Mar 08	16:11:23	48362	-50424	P	-1.0650	0.8478	70.8S	90.2W	0

-----12 -2059 Mar 18 22:52:10 47916 -50201 A- -0.9981 0.9622 71.3S 154.3E 0

-----11 -2041 Mar 30 05:23:36 47471 -49978 A -0.9232 0.9360 64.7S 18.8W 22 623 05m14s

-----10 -2023 Apr 09 11:50:45 47028 -49755 A -0.8445 0.9402 53.2S 134.2W 32 410 05m34s

-----09 -2005 Apr 20 18:11:54 46588 -49532 A -0.7604 0.9436 42.2S 119.6E 40 317 05m53s

00029 -08 -1987 May 01 00:29:51 46149 -49309 A -0.6733 0.9464 31.9S 17.1E 47 264 06m10s

00072 -07 -1969 May 12 06:45:38 45713 -49086 A -0.5839 0.9485 22.1S 83.5W 54 231 06m24s

00115 -06 -1951 May 22 13:02:16 45279 -48863 A -0.4945 0.9502 13.1S 176.9E 60 209 06m34s

00158 -05 -1933 Jun 02 19:20:26 44847 -48640 A -0.4060 0.9512 4.8S 77.7E 66 195 06m39s

00202 -04 -1915 Jun 13 01:41:44 44416 -48417 A -0.3194 0.9518 2.8N 21.3W 71 186 06m40s

00246 -03 -1897 Jun 24 08:08:49 43988 -48194 A -0.2370 0.9519 9.3N 121.0W 76 181 06m36s

00291 -02 -1879 Jul 04 14:42:43 43562 -47971 A -0.1592 0.9516 14.7N 138.6E 81 179 06m28s

00337 -01 -1861 Jul 15 21:24:00 43138 -47748 A -0.0870 0.9510 19.0N 37.1E 85 180 06m18s

00383 00 -1843 Jul 26 04:14:32 42716 -47525 A -0.0216 0.9502 21.9N 66.1W 89 183 06m09s

00429 01 -1825 Aug 06 11:15:15 42297 -47302 A 0.0361 0.9491 23.4N 171.5W 88 187 06m01s

00474 02 -1807 Aug 16 18:27:18 41879 -47079 A 0.0854 0.9481 23.6N 80.3E 85 192 05m55s

00521 03 -1789 Aug 28 01:48:41 41463 -46856 A 0.1279 0.9470 22.6N 30.3W 83 196 05m52s

00566 04 -1771 Sep 07 09:22:22 41050 -46633 A 0.1610 0.9462 20.5N 144.5W 81 201 05m50s

00611 05 -1753 Sep 18 17:05:43 40638 -46410 A 0.1868 0.9456 17.6N 98.4E 79 204 05m50s

00656 06 -1735 Sep 29 00:59:34 40229 -46187 A 0.2048 0.9454 14.1N 21.8W 78 205 05m50s

00703 07 -1717 Oct 10 09:00:26 39821 -45964 A 0.2176 0.9456 10.2N 144.0W 77 205 05m51s

00748 08 -1699 Oct 20 17:09:38 39416 -45741 Am 0.2245 0.9464 6.1N 91.4E 77 202 05m50s

00792 09 -1681 Nov 01 01:23:34 39013 -45518 A 0.2281 0.9477 2.2N 34.3W 77 197 05m47s

00834 10 -1663 Nov 11 09:41:25 38612 -45295 A 0.2290 0.9497 1.6S 161.0W 77 189 05m40s

00875 11 -1645 Nov 22 18:00:57 38213 -45072 A 0.2292 0.9523 4.9S 72.0E 77 179 05m30s

00916 12 -1627 Dec 03 02:20:57 37816 -44849 A 0.2295 0.9557 7.5S 54.8W 77 166 05m13s

00957 13 -1609 Dec 14 10:38:54 37421 -44626 A 0.2324 0.9596 9.2S 179.1E 77 151 04m50s

00998 14 -1591 Dec 24 18:53:12 37028 -44403 A 0.2392 0.9642 9.9S 54.1E 76 133 04m20s

01039 15 -1572 Jan 05 03:03:16 36637 -44180 A 0.2502 0.9693 9.5S 69.9W 76 114 03m45s

01080	16	-1554	Jan 15	11:07:55	36248	-43957	A	0.2661	0.9749	7.9S	167.3E	75	93	03m03s
01120	17	-1536	Jan 26	19:04:59	35862	-43734	A	0.2895	0.9809	5.1S	46.1E	73	71	02m18s
01160	18	-1518	Feb 06	02:55:29	35477	-43511	A	0.3191	0.9871	1.1S	73.9W	71	48	01m31s
01200	19	-1500	Feb 17	10:38:07	35095	-43288	A	0.3562	0.9934	3.9N	167.5E	69	25	00m45s
01240	20	-1482	Feb 27	18:14:42	34714	-43065	A	0.3992	0.9997	9.7N	49.8E	66	1	00m02s
01280	21	-1464	Mar 10	01:42:32	34336	-42842	H	0.4502	1.0058	16.5N	66.2W	63	22	00m36s
01321	22	-1446	Mar 21	09:05:39	33959	-42619	H	0.5060	1.0117	23.9N	178.5E	59	46	01m09s
01362	23	-1428	Mar 31	16:22:18	33585	-42396	T	0.5682	1.0171	31.9N	64.3E	55	70	01m34s
01403	24	-1410	Apr 11	23:35:20	33213	-42173	T	0.6340	1.0220	40.5N	49.6W	50	96	01m52s
01444	25	-1392	Apr 22	06:44:14	32843	-41950	T	0.7040	1.0261	49.6N	163.2W	45	124	02m03s
01485	26	-1374	May 03	13:52:19	32475	-41727	T	0.7755	1.0295	59.2N	82.0E	39	158	02m07s
01527	27	-1356	May 13	20:59:28	32109	-41504	T	0.8487	1.0317	69.4N	36.7W	32	203	02m03s
01569	28	-1338	May 25	04:06:56	31745	-41281	T	0.9222	1.0327	79.4N	176.3W	22	291	01m54s
01612	29	-1320	Jun 04	11:17:01	31383	-41058	Tn	0.9944	1.0300	72.4N	18.0W	4	-	01m30s
01656	30	-1302	Jun 15	18:30:34	31024	-40835	P	1.0646	0.8882	67.4N	143.3W	0		
01699	31	-1284	Jun 26	01:49:39	30666	-40612	P	1.1309	0.7633	66.4N	94.6E	0		
01744	32	-1266	Jul 07	09:13:30	30311	-40389	P	1.1940	0.6444	65.4N	28.2W	0		
01790	33	-1248	Jul 17	16:45:58	29957	-40166	P	1.2510	0.5366	64.5N	152.8W	0		
01835	34	-1230	Jul 29	00:25:10	29606	-39943	P	1.3033	0.4377	63.6N	81.2E	0		
01880	35	-1212	Aug 08	08:13:20	29256	-39720	P	1.3489	0.3516	62.8N	46.7W	0		
01925	36	-1194	Aug 19	16:09:22	28909	-39497	P	1.3888	0.2764	62.1N	176.3W	0		
01970	37	-1176	Aug 30	00:15:43	28564	-39274	P	1.4210	0.2159	61.6N	51.6E	0		
02017	38	-1158	Sep 10	08:30:13	28221	-39051	P	1.4473	0.1666	61.2N	82.3W	0		
02063	39	-1140	Sep 20	16:53:11	27880	-38828	P	1.4675	0.1290	60.9N	141.7E	0		
02108	40	-1122	Oct 02	01:24:08	27541	-38605	P	1.4819	0.1024	60.8N	3.8E	0		
02153	41	-1104	Oct 12	10:03:00	27204	-38382	P	1.4903	0.0870	60.8N	136.0W	0		
02196	42	-1086	Oct 23	18:46:56	26869	-38159	P	1.4954	0.0776	61.1N	82.9E	0		
02239	43	-1068	Nov 03	03:35:44	26536	-37936	P	1.4970	0.0747	61.5N	59.5W	0		

02282 44 -1050 Nov 14 12:27:10 26205 -37713 P 1.4971 0.0744 62.0N 157.3E 0
02325 45 -1032 Nov 24 21:21:11 25877 -37490 P 1.4957 0.0767 62.7N 13.3E 0
02368 46 -1014 Dec 06 06:13:27 25550 -37267 P 1.4958 0.0758 63.5N 130.4W 0
02410 47 -0996 Dec 16 15:05:32 25226 -37044 P 1.4968 0.0734 64.4N 85.5E 0
02451 48 -0978 Dec 27 23:52:42 24903 -36821 P 1.5018 0.0629 65.4N 57.6W 0
02492 49 -0959 Jan 07 08:36:28 24583 -36598 P 1.5101 0.0461 66.4N 159.7E 0
02533 50 -0941 Jan 18 17:12:07 24265 -36375 Pe 1.5250 0.0165 67.5N 18.5E 0

SAROS SERIES

17

Saros series 17 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

----- -35 -2427 Jul 03 05:12:57 57436 -54749 Pb 1.4983 0.1028 64.4N 176.3W 0
----- -34 -2409 Jul 14 12:06:10 56950 -54526 P 1.4288 0.2238 65.4N 68.4E 0

----- -33 -2391 Jul 24 19:10:59 56465 -54303 P 1.3674 0.3308 66.4N 50.3W 0
 ----- -32 -2373 Aug 05 02:25:34 55982 -54080 P 1.3129 0.4258 67.5N 171.8W 0
 ----- -31 -2355 Aug 15 09:51:10 55501 -53857 P 1.2662 0.5070 68.5N 63.3E 0
 ----- -30 -2337 Aug 26 17:28:03 55023 -53634 P 1.2275 0.5743 69.4N 64.9W 0
 ----- -29 -2319 Sep 06 01:16:07 54546 -53411 P 1.1967 0.6278 70.3N 163.3E 0
 ----- -28 -2301 Sep 17 09:14:27 54072 -53188 P 1.1736 0.6680 71.0N 28.4E 0
 ----- -27 -2283 Sep 27 17:20:55 53599 -52965 P 1.1562 0.6984 71.5N 109.0W 0
 ----- -26 -2265 Oct 09 01:36:31 53129 -52742 P 1.1455 0.7171 71.7N 110.9E 0
 ----- -25 -2247 Oct 19 09:58:08 52660 -52519 P 1.1388 0.7292 71.6N 30.7W 0
 ----- -24 -2229 Oct 30 18:24:58 52194 -52296 P 1.1357 0.7351 71.3N 173.5W 0
 ----- -23 -2211 Nov 10 02:54:05 51730 -52073 P 1.1336 0.7395 70.7N 43.5E 0
 ----- -22 -2193 Nov 21 11:25:11 51268 -51850 P 1.1324 0.7424 70.0N 99.3W 0
 ----- -21 -2175 Dec 01 19:54:57 50808 -51627 P 1.1294 0.7487 69.0N 118.8E 0
 ----- -20 -2157 Dec 13 04:22:27 50350 -51404 P 1.1239 0.7598 68.0N 21.8W 0
 ----- -19 -2139 Dec 23 12:46:02 49894 -51181 P 1.1140 0.7787 66.9N 160.8W 0
 ----- -18 -2120 Jan 03 21:04:54 49441 -50958 P 1.0994 0.8065 65.8N 62.0E 0
 ----- -17 -2102 Jan 14 05:16:40 48989 -50735 P 1.0782 0.8468 64.8N 73.0W 0
 ----- -16 -2084 Jan 25 13:22:01 48539 -50512 P 1.0508 0.8987 63.8N 154.0E 0
 ----- -15 -2066 Feb 04 21:19:31 48092 -50289 P 1.0160 0.9649 62.9N 23.2E 0
 ----- -14 -2048 Feb 16 05:11:00 47646 -50066 T 0.9750 1.0081 53.1N 90.5W 12 130 00m37s
 ----- -13 -2030 Feb 26 12:53:08 47203 -49843 T 0.9255 1.0174 46.1N 154.7E 22 155 01m21s
 ----- -12 -2012 Mar 08 20:30:21 46761 -49620 T 0.8709 1.0256 42.0N 39.7E 29 173 02m00s
 00013 -11 -1994 Mar 20 03:59:50 46322 -49397 T 0.8091 1.0333 39.4N 73.3W 36 186 02m35s
 00056 -10 -1976 Mar 30 11:26:06 45885 -49174 T 0.7436 1.0404 37.9N 174.7E 42 197 03m05s
 00098 -09 -1958 Apr 10 18:45:52 45450 -48951 T 0.6719 1.0468 37.0N 64.7E 48 206 03m32s
 00141 -08 -1940 Apr 21 02:04:36 45017 -48728 T 0.5983 1.0524 36.8N 44.7W 53 213 03m56s
 00184 -07 -1922 May 02 09:19:50 44586 -48505 T 0.5213 1.0573 36.7N 152.8W 58 219 04m18s
 00228 -06 -1904 May 12 16:35:44 44157 -48282 T 0.4441 1.0613 36.6N 99.2E 63 223 04m39s

00272 -05 -1886 May 23 23:51:15 43730 -48059 T 0.3658 1.0644 36.1N 8.4W 68 226 04m59s
 00318 -04 -1868 Jun 03 07:10:24 43305 -47836 T 0.2900 1.0667 35.3N 116.9W 73 227 05m17s
 00365 -03 -1850 Jun 14 14:32:21 42883 -47613 T 0.2160 1.0680 33.7N 133.8E 77 227 05m33s
 00411 -02 -1832 Jun 24 21:59:15 42462 -47390 T 0.1456 1.0685 31.5N 22.9E 81 226 05m46s
 00456 -01 -1814 Jul 06 05:31:47 42043 -47167 T 0.0796 1.0682 28.5N 90.0W 85 223 05m56s
 00502 00 -1796 Jul 16 13:11:22 41627 -46944 T 0.0193 1.0673 25.0N 154.7E 89 220 06m01s
 00548 01 -1778 Jul 27 20:58:21 41213 -46721 T -0.0353 1.0658 20.8N 37.0E 88 215 06m01s
 00593 02 -1760 Aug 07 04:53:14 40800 -46498 Tm -0.0834 1.0638 16.3N 83.4W 85 210 05m54s
 00638 03 -1742 Aug 18 12:56:59 40390 -46275 T -0.1242 1.0614 11.4N 153.6E 83 203 05m43s
 00684 04 -1724 Aug 28 21:09:28 39982 -46052 T -0.1577 1.0589 6.3N 28.0E 81 196 05m28s
 00730 05 -1706 Sep 09 05:29:48 39576 -45829 T -0.1846 1.0563 1.1N 99.8W 79 189 05m11s
 00774 06 -1688 Sep 19 13:58:44 39172 -45606 T -0.2045 1.0537 4.1S 130.1E 78 181 04m53s
 00818 07 -1670 Sep 30 22:34:46 38770 -45383 T -0.2186 1.0513 9.2S 1.7W 77 174 04m37s
 00859 08 -1652 Oct 11 07:17:32 38370 -45160 T -0.2268 1.0492 14.2S 134.9W 77 167 04m22s
 00900 09 -1634 Oct 22 16:04:12 37972 -44937 T -0.2317 1.0474 19.0S 91.1E 76 162 04m10s
 00941 10 -1616 Nov 02 00:55:43 37576 -44714 T -0.2327 1.0461 23.4S 43.6W 76 158 04m01s
 00982 11 -1598 Nov 13 09:49:09 37183 -44491 T -0.2322 1.0452 27.5S 178.2W 76 155 03m55s
 01023 12 -1580 Nov 23 18:43:19 36791 -44268 T -0.2312 1.0450 31.1S 47.6E 76 154 03m51s
 01064 13 -1562 Dec 05 03:35:56 36401 -44045 T -0.2314 1.0450 34.0S 85.5W 76 154 03m50s
 01104 14 -1544 Dec 15 12:26:09 36014 -43822 T -0.2338 1.0457 36.3S 142.5E 76 157 03m51s
 01144 15 -1526 Dec 26 21:12:07 35629 -43599 T -0.2397 1.0466 37.7S 12.1E 76 160 03m54s
 01184 16 -1507 Jan 06 05:51:53 35245 -43376 T -0.2508 1.0479 38.4S 116.6W 75 165 03m57s
 01224 17 -1489 Jan 17 14:25:23 34864 -43153 T -0.2673 1.0493 38.4S 116.4E 74 170 04m00s
 01264 18 -1471 Jan 27 22:50:49 34485 -42930 T -0.2904 1.0508 37.7S 8.7W 73 176 04m04s
 01304 19 -1453 Feb 08 07:07:43 34108 -42707 T -0.3204 1.0523 36.5S 132.0W 71 183 04m07s
 01346 20 -1435 Feb 18 15:15:25 33733 -42484 T -0.3579 1.0536 35.0S 106.7E 69 189 04m10s
 01387 21 -1417 Mar 01 23:14:30 33360 -42261 T -0.4023 1.0546 33.4S 12.8W 66 196 04m12s
 01428 22 -1399 Mar 12 07:05:11 32989 -42038 T -0.4535 1.0551 31.9S 130.5W 63 203 04m14s

01469 23 -1381 Mar 23 14:46:27 32620 -41815 T -0.5121 1.0551 30.8S 114.0E 59 209 04m14s

01511 24 -1363 Apr 02 22:20:58 32253 -41592 T -0.5757 1.0543 30.2S 0.0E 55 216 04m13s

01553 25 -1345 Apr 14 05:48:09 31889 -41369 T -0.6448 1.0528 30.5S 112.2W 50 224 04m08s

01596 26 -1327 Apr 24 13:10:37 31526 -41146 T -0.7174 1.0504 31.9S 136.6E 44 235 04m00s

01639 27 -1309 May 05 20:27:00 31165 -40923 T -0.7942 1.0469 34.8S 27.0E 37 251 03m45s

01682 28 -1291 May 16 03:41:12 30807 -40700 T -0.8723 1.0422 39.8S 81.8W 29 283 03m21s

01727 29 -1273 May 27 10:52:41 30451 -40477 T -0.9513 1.0356 48.6S 171.8E 17 389 02m43s

01771 30 -1255 Jun 06 18:03:43 30096 -40254 P -1.0300 0.9518 63.2S 72.5E 0

01817 31 -1237 Jun 18 01:14:59 29744 -40031 P -1.1075 0.8047 64.0S 46.4W 0

01862 32 -1219 Jun 28 08:28:45 29394 -39808 P -1.1819 0.6646 65.0S 166.2W 0

01907 33 -1201 Jul 09 15:45:55 29046 -39585 P -1.2523 0.5332 66.0S 72.9E 0

01952 34 -1183 Jul 19 23:06:27 28700 -39362 P -1.3189 0.4103 67.0S 49.4W 0

01998 35 -1165 Jul 31 06:32:53 28356 -39139 P -1.3793 0.3003 68.0S 173.5W 0

02044 36 -1147 Aug 10 14:04:50 28014 -38916 P -1.4341 0.2018 69.0S 60.3E 0

02090 37 -1129 Aug 21 21:44:25 27674 -38693 P -1.4816 0.1178 69.9S 68.3W 0

02135 38 -1111 Sep 01 05:29:52 27336 -38470 Pe -1.5234 0.0453 70.6S 161.1E 0

SAROS SERIES

Saros series 18 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----	-38	-2416	Jun 02	04:02:44	57141	-54614	Pb	-1.5177	0.0191	69.1S	25.9E	0	
-----	-37	-2398	Jun 13	11:29:09	56656	-54391	P	-1.4480	0.1547	68.3S	99.6W	0	
-----	-36	-2380	Jun 23	19:00:19	56172	-54168	P	-1.3820	0.2833	67.3S	134.1E	0	
-----	-35	-2362	Jul 05	02:37:04	55691	-53945	P	-1.3201	0.4035	66.3S	7.0E	0	
-----	-34	-2344	Jul 15	10:20:50	55211	-53722	P	-1.2639	0.5124	65.3S	121.4W	0	
-----	-33	-2326	Jul 26	18:10:54	54734	-53499	P	-1.2127	0.6108	64.3S	109.1E	0	
-----	-32	-2308	Aug 06	02:09:47	54258	-53276	P	-1.1687	0.6949	63.4S	22.4W	0	
-----	-31	-2290	Aug 17	10:16:30	53785	-53053	P	-1.1311	0.7661	62.6S	155.4W	0	
-----	-30	-2272	Aug 27	18:31:43	53314	-52830	P	-1.1009	0.8229	61.9S	69.6E	0	
-----	-29	-2254	Sep 08	02:54:28	52845	-52607	P	-1.0770	0.8670	61.3S	67.0W	0	
-----	-28	-2236	Sep 18	11:25:10	52378	-52384	P	-1.0600	0.8979	60.9S	154.6E	0	
-----	-27	-2218	Sep 29	20:02:40	51913	-52161	P	-1.0489	0.9175	60.6S	14.5E	0	
-----	-26	-2200	Oct 10	04:44:55	51450	-51938	P	-1.0421	0.9290	60.5S	126.6W	0	
-----	-25	-2182	Oct 21	13:32:34	50989	-51715	P	-1.0401	0.9316	60.6S	90.9E	0	
-----	-24	-2164	Oct 31	22:22:48	50531	-51492	P	-1.0411	0.9287	60.8S	52.3W	0	
-----	-23	-2146	Nov 12	07:15:01	50074	-51269	P	-1.0438	0.9229	61.3S	163.9E	0	
-----	-22	-2128	Nov 22	16:05:25	49619	-51046	P	-1.0457	0.9189	61.8S	20.5E	0	
-----	-21	-2110	Dec 04	00:55:08	49167	-50823	P	-1.0474	0.9153	62.5S	122.9W	0	
-----	-20	-2092	Dec 14	09:40:26	48716	-50600	P	-1.0462	0.9174	63.4S	94.5E	0	
-----	-19	-2074	Dec 25	18:20:52	48268	-50377	P	-1.0416	0.9260	64.3S	47.2W	0	
-----	-18	-2055	Jan 05	02:54:03	47822	-50154	P	-1.0318	0.9442	65.3S	172.6E	0	

----- -17 -2037 Jan 16 11:20:20 47377 -49931 P -1.0168 0.9723 66.4S 33.8E 0

----- -16 -2019 Jan 26 19:37:20 46935 -49708 Ts -0.9950 1.0195 71.1S 104.8W 4 - 00m58s

----- -15 -2001 Feb 07 03:45:17 46495 -49485 T -0.9665 1.0234 80.7S 91.6E 14 327 01m15s

00038 -14 -1983 Feb 17 11:43:36 46057 -49262 T -0.9309 1.0259 79.1S 89.1W 21 246 01m30s

00081 -13 -1965 Feb 28 19:33:01 45621 -49039 T -0.8890 1.0279 71.9S 125.0E 27 208 01m44s

00124 -12 -1947 Mar 11 03:11:51 45187 -48816 T -0.8390 1.0294 63.3S 4.3W 33 183 01m59s

00167 -11 -1929 Mar 22 10:43:01 44756 -48593 T -0.7834 1.0303 54.5S 127.0W 38 164 02m13s

00210 -10 -1911 Apr 01 18:05:15 44326 -48370 T -0.7212 1.0307 45.5S 114.4E 44 149 02m26s

00254 -09 -1893 Apr 13 01:21:49 43898 -48147 T -0.6552 1.0302 36.7S 1.7W 49 134 02m36s

00299 -08 -1875 Apr 23 08:29:55 43473 -47924 T -0.5830 1.0291 27.8S 115.1W 54 120 02m42s

00346 -07 -1857 May 04 15:35:26 43049 -47701 T -0.5094 1.0272 19.3S 132.9E 59 107 02m41s

00392 -06 -1839 May 14 22:35:50 42628 -47478 T -0.4321 1.0246 11.0S 22.7E 64 92 02m34s

00438 -05 -1821 May 26 05:35:56 42208 -47255 T -0.3555 1.0212 3.3S 86.7W 69 77 02m18s

00484 -04 -1803 Jun 05 12:33:29 41791 -47032 T -0.2775 1.0171 4.0N 165.2E 74 61 01m54s

00531 -03 -1785 Jun 16 19:34:08 41376 -46809 H -0.2030 1.0124 10.4N 57.1E 78 44 01m23s

00576 -02 -1767 Jun 27 02:35:28 40963 -46586 Hm -0.1298 1.0070 16.0N 50.3W 83 25 00m47s

00621 -01 -1749 Jul 08 09:40:54 40552 -46363 H -0.0609 1.0013 20.5N 158.0W 87 5 00m09s

00666 00 -1731 Jul 18 16:50:06 40143 -46140 A 0.0039 0.9951 23.9N 94.2E 90 17 00m32s

00713 01 -1713 Jul 30 00:06:08 39736 -45917 A 0.0620 0.9888 26.0N 14.9W 86 40 01m11s

00757 02 -1695 Aug 09 07:28:10 39331 -45694 A 0.1143 0.9822 26.8N 125.3W 83 63 01m50s

00801 03 -1677 Aug 20 14:57:08 38928 -45471 A 0.1598 0.9757 26.3N 122.6E 81 88 02m28s

00842 04 -1659 Aug 30 22:33:53 38527 -45248 A 0.1980 0.9694 24.8N 8.1E 78 112 03m06s

00883 05 -1641 Sep 11 06:18:17 38129 -45025 A 0.2290 0.9633 22.4N 108.8W 77 136 03m43s

00924 06 -1623 Sep 21 14:09:41 37732 -44802 A 0.2531 0.9575 19.3N 132.1E 75 159 04m20s

00965 07 -1605 Oct 02 22:07:42 37338 -44579 A 0.2711 0.9523 15.7N 10.9E 74 180 04m58s

01007 08 -1587 Oct 13 06:11:49 36945 -44356 A 0.2834 0.9476 11.9N 112.2W 73 200 05m35s

01048 09 -1569 Oct 24 14:20:38 36555 -44133 A 0.2910 0.9435 8.0N 123.3E 73 217 06m13s

01089 10 -1551 Nov 03 22:31:46 36167 -43910 A 0.2961 0.9401 4.3N 1.8W 73 231 06m50s

01129	11	-1533	Nov 15	06:45:08	35780	-43687	A	0.2987	0.9374	0.9N	127.4W	73	243	07m26s
01168	12	-1515	Nov 25	14:58:10	35396	-43464	A	0.3005	0.9353	2.0S	107.3E	73	251	08m00s
01208	13	-1497	Dec 06	23:08:53	35014	-43241	A	0.3041	0.9340	4.1S	17.3W	72	258	08m30s
01248	14	-1479	Dec 17	07:14:46	34634	-43018	A	0.3109	0.9332	5.2S	140.5W	72	262	08m55s
01288	15	-1461	Dec 28	15:15:29	34256	-42795	A	0.3213	0.9331	5.2S	97.6E	71	263	09m12s
01329	16	-1442	Jan 07	23:08:57	33880	-42572	A	0.3369	0.9334	4.1S	22.6W	70	264	09m20s
01370	17	-1424	Jan 19	06:52:57	33507	-42349	A	0.3595	0.9342	1.8S	140.6W	69	263	09m17s
01412	18	-1406	Jan 29	14:27:44	33135	-42126	A	0.3890	0.9352	1.8N	103.3E	67	262	09m06s
01453	19	-1388	Feb 09	21:51:55	32765	-41903	A	0.4267	0.9365	6.5N	10.7W	65	261	08m44s
01495	20	-1370	Feb 20	05:06:20	32398	-41680	A	0.4717	0.9378	12.2N	122.9W	62	261	08m17s
01537	21	-1352	Mar 02	12:09:04	32032	-41457	A	0.5256	0.9391	19.1N	127.3E	58	264	07m44s
01579	22	-1334	Mar 13	19:03:14	31669	-41234	A	0.5859	0.9402	26.7N	18.9E	54	271	07m09s
01622	23	-1316	Mar 24	01:47:24	31307	-41011	A	0.6539	0.9410	35.3N	87.9W	49	285	06m32s
01666	24	-1298	Apr 04	08:23:37	30948	-40788	A	0.7279	0.9415	44.7N	166.1E	43	312	05m56s
01710	25	-1280	Apr 14	14:52:43	30591	-40565	A	0.8073	0.9413	55.1N	59.4E	36	365	05m22s
01754	26	-1262	Apr 25	21:16:42	30236	-40342	A	0.8905	0.9403	66.4N	53.0W	27	487	04m49s
01800	27	-1244	May 06	03:36:52	29883	-40119	A	0.9763	0.9374	75.7N	156.2E	12	1145	04m16s
01845	28	-1226	May 17	09:53:35	29532	-39896	P	1.0644	0.8521	69.9N	10.4E	0		
01890	29	-1208	May 27	16:10:37	29183	-39673	P	1.1519	0.7025	69.0N	97.5W	0		
01935	30	-1190	Jun 07	22:28:14	28836	-39450	P	1.2388	0.5539	68.1N	155.0E	0		
01980	31	-1172	Jun 18	04:49:01	28491	-39227	P	1.3224	0.4108	67.1N	47.3E	0		
02027	32	-1154	Jun 29	11:13:28	28149	-39004	P	1.4029	0.2735	66.0N	60.8W	0		
02073	33	-1136	Jul 09	17:44:45	27808	-38781	P	1.4776	0.1463	65.1N	170.2W	0		
02118	34	-1118	Jul 21	00:22:48	27469	-38558	Pe	1.5469	0.0288	64.1N	79.0E	0		

SAROS SERIES

19

Saros series 19 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
-----35	-2333	Jun 15	12:31:09	54922	-53587	Pb	1.5434	0.0147	63.1N	78.8E	0		
-----34	-2315	Jun 25	19:19:53	54446	-53364	P	1.4758	0.1369	63.9N	34.9W	0		
-----33	-2297	Jul 07	02:12:23	53972	-53141	P	1.4114	0.2520	64.8N	149.8W	0		
-----32	-2279	Jul 17	09:11:09	53500	-52918	P	1.3526	0.3562	65.8N	93.4E	0		
-----31	-2261	Jul 28	16:16:07	53030	-52695	P	1.2995	0.4492	66.8N	25.4W	0		
-----30	-2243	Aug 07	23:28:01	52562	-52472	P	1.2526	0.5305	67.9N	146.4W	0		
-----29	-2225	Aug 19	06:48:01	52096	-52249	P	1.2129	0.5983	68.9N	90.0E	0		
-----28	-2207	Aug 29	14:16:09	51633	-52026	P	1.1804	0.6533	69.8N	36.2W	0		
-----27	-2189	Sep 09	21:52:18	51171	-51803	P	1.1548	0.6957	70.6N	165.1W	0		
-----26	-2171	Sep 20	05:35:35	50711	-51580	P	1.1356	0.7271	71.2N	63.7E	0		
-----25	-2153	Oct 01	13:26:05	50254	-51357	P	1.1229	0.7475	71.6N	69.8W	0		
-----24	-2135	Oct 11	21:22:39	49799	-51134	P	1.1154	0.7590	71.7N	154.9E	0		
-----23	-2117	Oct 23	05:23:04	49345	-50911	P	1.1114	0.7649	71.5N	18.6E	0		
-----22	-2099	Nov 02	13:27:19	48894	-50688	P	1.1108	0.7653	71.1N	118.3W	0		

----- -21 -2081 Nov 13 21:31:57 48445 -50465 P 1.1104 0.7656 70.5N 105.2E 0
 ----- -20 -2063 Nov 24 05:36:50 47998 -50242 P 1.1108 0.7647 69.6N 30.8W 0
 ----- -19 -2045 Dec 05 13:37:20 47553 -50019 P 1.1076 0.7701 68.7N 165.0W 0
 ----- -18 -2027 Dec 15 21:35:20 47110 -49796 P 1.1025 0.7787 67.6N 62.0E 0
 ----- -17 -2009 Dec 27 05:26:01 46669 -49573 P 1.0913 0.7978 66.5N 68.4W 0
 00022 -16 -1990 Jan 06 13:10:01 46230 -49350 P 1.0749 0.8256 65.4N 163.3E 0
 00065 -15 -1972 Jan 17 20:43:43 45793 -49127 P 1.0502 0.8677 64.4N 38.0E 0
 00108 -14 -1954 Jan 28 04:09:29 45358 -48904 A+ 1.0192 0.9207 63.4N 84.9W 0
 00151 -13 -1936 Feb 08 11:24:38 44926 -48681 An 0.9793 0.9202 53.9N 167.7E 11 - 07m38s
 00194 -12 -1918 Feb 18 18:29:52 44495 -48458 A 0.9312 0.9255 46.0N 61.8E 21 755 07m30s
 00238 -11 -1900 Mar 01 01:25:12 44067 -48235 A 0.8748 0.9302 41.1N 42.9W 29 523 07m09s
 00282 -10 -1882 Mar 12 08:11:58 43640 -48012 A 0.8112 0.9347 37.7N 145.4W 36 402 06m41s
 00328 -09 -1864 Mar 22 14:50:16 43216 -47789 A 0.7404 0.9389 35.4N 114.6E 42 326 06m12s
 00374 -08 -1846 Apr 02 21:21:37 42794 -47566 A 0.6631 0.9428 34.0N 16.8E 48 274 05m46s
 00420 -07 -1828 Apr 13 03:47:21 42374 -47343 A 0.5808 0.9464 33.1N 79.3W 54 237 05m23s
 00465 -06 -1810 Apr 24 10:09:51 41956 -47120 A 0.4952 0.9495 32.5N 174.3W 60 210 05m06s
 00512 -05 -1792 May 04 16:28:25 41539 -46897 A 0.4057 0.9522 31.8N 92.1E 66 190 04m53s
 00558 -04 -1774 May 15 22:47:48 41126 -46674 A 0.3163 0.9543 31.0N 1.7W 71 175 04m47s
 00603 -03 -1756 May 26 05:07:02 40714 -46451 A 0.2263 0.9560 29.7N 95.3W 77 164 04m46s
 00648 -02 -1738 Jun 06 11:30:50 40304 -46228 A 0.1392 0.9572 27.9N 169.6E 82 157 04m50s
 00694 -01 -1720 Jun 16 17:56:39 39896 -46005 A 0.0531 0.9579 25.3N 73.7E 87 153 04m58s
 00740 00 -1702 Jun 28 00:30:18 39490 -45782 A -0.0270 0.9582 22.1N 24.7W 89 152 05m09s
 00784 01 -1684 Jul 08 07:09:27 39087 -45559 Am -0.1029 0.9580 18.1N 125.2W 84 153 05m22s
 00826 02 -1666 Jul 19 13:58:11 38685 -45336 A -0.1715 0.9577 13.7N 131.3E 80 156 05m33s
 00867 03 -1648 Jul 29 20:54:51 38286 -45113 A -0.2343 0.9570 8.7N 25.2E 77 161 05m42s
 00908 04 -1630 Aug 10 04:03:27 37888 -44890 A -0.2879 0.9562 3.6N 84.5W 73 166 05m46s
 00949 05 -1612 Aug 20 11:21:53 37493 -44667 A -0.3338 0.9553 1.8S 162.9E 70 172 05m46s
 00990 06 -1594 Aug 31 18:51:18 37100 -44444 A -0.3714 0.9546 7.2S 47.3E 68 178 05m41s

01032 07 -1576 Sep 11 02:31:18 36709 -44221 A -0.4011 0.9540 12.7S 71.0W 66 182 05m34s
 01073 08 -1558 Sep 22 10:21:59 36320 -43998 A -0.4227 0.9538 18.0S 168.0E 65 185 05m23s
 01113 09 -1540 Oct 02 18:22:02 35933 -43775 A -0.4375 0.9538 23.2S 44.8E 64 186 05m10s
 01153 10 -1522 Oct 14 02:29:48 35548 -43552 A -0.4467 0.9544 28.2S 79.9W 63 185 04m55s
 01193 11 -1504 Oct 24 10:45:01 35165 -43329 A -0.4506 0.9555 33.0S 154.2E 63 181 04m38s
 01233 12 -1486 Nov 04 19:05:27 34784 -43106 A -0.4511 0.9572 37.5S 27.6E 63 174 04m19s
 01273 13 -1468 Nov 15 03:29:14 34405 -42883 A -0.4497 0.9596 41.5S 98.9W 63 164 03m59s
 01313 14 -1450 Nov 26 11:54:35 34029 -42660 A -0.4479 0.9626 45.0S 135.2E 63 151 03m36s
 01354 15 -1432 Dec 06 20:19:34 33654 -42437 A -0.4473 0.9662 47.8S 10.5E 63 136 03m10s
 01395 16 -1414 Dec 18 04:42:29 33281 -42214 A -0.4490 0.9705 49.9S 112.8W 63 119 02m42s
 01436 17 -1396 Dec 28 13:01:06 32911 -41991 A -0.4552 0.9753 51.0S 125.8E 63 99 02m13s
 01478 18 -1377 Jan 08 21:15:24 32543 -41768 A -0.4658 0.9806 51.2S 5.6E 62 78 01m42s
 01520 19 -1359 Jan 19 05:23:36 32176 -41545 A -0.4825 0.9862 50.7S 113.1W 61 56 01m10s
 01562 20 -1341 Jan 30 13:24:26 31812 -41322 A -0.5061 0.9923 49.4S 129.5E 59 31 00m39s
 01605 21 -1323 Feb 09 21:17:59 31450 -41099 A -0.5366 0.9983 47.8S 13.3E 57 7 00m08s
 01649 22 -1305 Feb 21 05:04:15 31090 -40876 H -0.5739 1.0045 46.0S 101.8W 55 19 00m22s
 01692 23 -1287 Mar 03 12:44:13 30732 -40653 H -0.6178 1.0105 44.2S 144.2E 52 45 00m49s
 01737 24 -1269 Mar 14 20:16:03 30376 -40430 T -0.6692 1.0162 42.9S 31.8E 48 74 01m15s
 01782 25 -1251 Mar 25 03:43:17 30022 -40207 T -0.7255 1.0214 42.2S 79.6W 43 104 01m38s
 01827 26 -1233 Apr 05 11:04:24 29670 -39984 T -0.7875 1.0261 42.6S 170.6E 38 140 01m59s
 01872 27 -1215 Apr 15 18:22:31 29320 -39761 T -0.8528 1.0299 44.3S 61.8E 31 189 02m14s
 01917 28 -1197 Apr 27 01:36:01 28973 -39538 T -0.9229 1.0323 48.5S 44.1W 22 278 02m21s
 01962 29 -1179 May 07 08:49:20 28627 -39315 Ts -0.9938 1.0314 59.0S 138.7W 5 - 02m03s
 02008 30 -1161 May 18 16:01:23 28284 -39092 P -1.0662 0.8865 62.0S 111.3E 0
 02054 31 -1143 May 28 23:14:28 27942 -38869 P -1.1384 0.7506 62.7S 7.6W 0
 02100 32 -1125 Jun 09 06:29:31 27603 -38646 P -1.2093 0.6161 63.5S 127.3W 0
 02145 33 -1107 Jun 19 13:48:36 27266 -38423 P -1.2772 0.4869 64.4S 111.9E 0
 02188 34 -1089 Jun 30 21:12:28 26930 -38200 P -1.3419 0.3633 65.3S 10.5W 0

-----29 -2178 Aug 08 19:52:29 50893 -51668 P -1.0763 0.8419 63.1S 54.9E 0

----- -28 -2160 Aug 19 03:26:23 50434 -51445 P -1.0319 0.9202 62.3S 69.8W 0
 ----- -27 -2142 Aug 30 11:10:36 49978 -51222 As -0.9947 0.9631 59.1S 170.0E 4 - 02m49s
 ----- -26 -2124 Sep 09 19:06:14 49524 -50999 A -0.9661 0.9659 52.8S 55.3E 14 476 02m42s

 ----- -25 -2106 Sep 21 03:11:14 49072 -50776 A -0.9439 0.9675 51.4S 68.7W 19 349 02m33s
 ----- -24 -2088 Oct 01 11:24:50 48622 -50553 A -0.9278 0.9688 51.9S 163.8E 21 295 02m23s
 ----- -23 -2070 Oct 12 19:46:23 48174 -50330 A -0.9173 0.9703 53.8S 33.3E 23 263 02m11s
 ----- -22 -2052 Oct 23 04:14:46 47728 -50107 A -0.9119 0.9721 56.6S 99.6W 24 240 01m59s
 ----- -21 -2034 Nov 03 12:46:47 47284 -49884 A -0.9084 0.9744 60.0S 126.2E 24 217 01m45s
 ----- -20 -2016 Nov 13 21:21:51 46842 -49661 A -0.9068 0.9771 63.8S 9.0W 25 193 01m30s
 00004 -19 -1998 Nov 25 05:57:03 46403 -49438 A -0.9045 0.9806 67.8S 143.8W 25 162 01m14s
 00047 -18 -1980 Dec 05 14:32:25 45965 -49215 A -0.9018 0.9845 72.0S 82.1E 25 127 00m58s
 00090 -17 -1962 Dec 16 23:03:15 45530 -48992 A -0.8949 0.9893 76.3S 47.3W 26 85 00m39s
 00133 -16 -1944 Dec 27 07:31:39 45096 -48769 A -0.8854 0.9946 80.4S 169.0W 27 41 00m20s

 00176 -15 -1925 Jan 07 15:52:48 44665 -48546 H -0.8696 1.0006 83.1S 91.4E 29 4 00m02s
 00220 -14 -1907 Jan 18 00:08:49 44236 -48323 H -0.8487 1.0071 81.7S 4.7E 32 47 00m27s
 00264 -13 -1889 Jan 29 08:15:48 43808 -48100 T -0.8198 1.0140 76.7S 101.4W 35 85 00m54s
 00309 -12 -1871 Feb 08 16:17:25 43383 -47877 T -0.7858 1.0210 70.3S 141.1E 38 117 01m24s
 00356 -11 -1853 Feb 20 00:10:17 42960 -47654 T -0.7440 1.0282 63.0S 21.0E 42 143 01m57s
 00402 -10 -1835 Mar 02 07:56:34 42539 -47431 T -0.6959 1.0353 55.3S 99.4W 46 165 02m34s
 00447 -09 -1817 Mar 13 15:35:24 42120 -47208 T -0.6407 1.0421 47.2S 141.1E 50 183 03m14s
 00493 -08 -1799 Mar 23 23:09:16 41703 -46985 T -0.5805 1.0485 38.9S 22.6E 54 197 03m55s
 00540 -07 -1781 Apr 04 06:37:38 41289 -46762 T -0.5149 1.0545 30.4S 94.7W 59 209 04m36s
 00585 -06 -1763 Apr 14 14:01:43 40876 -46539 T -0.4451 1.0598 21.9S 149.1E 63 218 05m15s

 00630 -05 -1745 Apr 25 21:23:14 40465 -46316 T -0.3724 1.0644 13.6S 33.8E 68 226 05m50s
 00676 -04 -1727 May 06 04:43:17 40057 -46093 T -0.2975 1.0681 5.4S 80.7W 73 232 06m18s

00723 -03 -1709 May 17 12:02:25 39650 -45870 T -0.2214 1.0711 2.5N 165.4E 77 237 06m38s
00767 -02 -1691 May 27 19:22:45 39246 -45647 T -0.1459 1.0731 9.8N 51.8E 82 240 06m48s
00811 -01 -1673 Jun 08 02:45:01 38843 -45424 T -0.0714 1.0742 16.6N 61.6W 86 241 06m49s
00851 00 -1655 Jun 18 10:11:15 38443 -45201 T 0.0000 1.0745 22.6N 175.0W 90 242 06m41s
00892 01 -1637 Jun 29 17:40:22 38045 -44978 Tm 0.0694 1.0740 27.7N 71.7E 86 241 06m27s
00933 02 -1619 Jul 10 01:16:28 37649 -44755 T 0.1332 1.0727 31.7N 42.4W 82 238 06m08s
00974 03 -1601 Jul 21 08:58:04 37255 -44532 T 0.1927 1.0707 34.4N 157.1W 79 235 05m47s
01015 04 -1583 Jul 31 16:48:13 36863 -44309 T 0.2452 1.0683 35.7N 86.4E 76 230 05m26s
01056 05 -1565 Aug 12 00:44:52 36473 -44086 T 0.2924 1.0653 35.8N 31.7W 73 223 05m05s
01097 06 -1547 Aug 22 08:51:29 36085 -43863 T 0.3316 1.0622 34.6N 152.7W 70 216 04m46s
01137 07 -1529 Sep 02 17:05:29 35699 -43640 T 0.3648 1.0588 32.5N 83.8E 68 207 04m29s
01177 08 -1511 Sep 13 01:28:05 35316 -43417 T 0.3910 1.0555 29.6N 42.6W 67 198 04m15s
01217 09 -1493 Sep 24 09:58:07 34934 -43194 T 0.4111 1.0522 26.2N 171.5W 66 188 04m03s
01257 10 -1475 Oct 04 18:35:57 34554 -42971 T 0.4246 1.0492 22.4N 57.0E 65 179 03m53s
01297 11 -1457 Oct 16 03:19:31 34177 -42748 T 0.4335 1.0465 18.6N 76.3W 64 170 03m46s
01338 12 -1439 Oct 26 12:07:11 33801 -42525 T 0.4389 1.0443 14.8N 149.2E 64 163 03m41s
01379 13 -1421 Nov 06 20:58:56 33428 -42302 T 0.4408 1.0425 11.2N 13.6E 64 157 03m39s
01420 14 -1403 Nov 17 05:52:19 33057 -42079 T 0.4410 1.0412 8.1N 122.4W 64 152 03m40s
01461 15 -1385 Nov 28 14:45:32 32688 -41856 T 0.4414 1.0404 5.5N 101.7E 64 150 03m43s
01503 16 -1367 Dec 08 23:36:35 32321 -41633 T 0.4432 1.0401 3.8N 33.5W 64 149 03m48s
01545 17 -1349 Dec 20 08:24:42 31955 -41410 T 0.4473 1.0402 2.9N 167.8W 63 150 03m54s
01588 18 -1331 Dec 30 17:08:09 31593 -41187 T 0.4551 1.0406 3.1N 59.0E 63 153 04m00s
01631 19 -1312 Jan 11 01:44:54 31232 -40964 T 0.4680 1.0413 4.4N 72.6W 62 156 04m06s
01675 20 -1294 Jan 21 10:14:58 30873 -40741 T 0.4862 1.0422 6.8N 157.2E 61 161 04m11s
01720 21 -1276 Feb 01 18:36:42 30516 -40518 T 0.5111 1.0430 10.3N 28.8E 59 167 04m13s
01764 22 -1258 Feb 12 02:49:50 30161 -40295 T 0.5430 1.0438 15.0N 98.0W 57 174 04m11s
01810 23 -1240 Feb 23 10:53:38 29809 -40072 T 0.5822 1.0442 20.6N 137.0E 54 181 04m06s
01855 24 -1222 Mar 05 18:48:58 29458 -39849 T 0.6280 1.0444 27.2N 13.5E 51 189 03m56s

01899	25	-1204	Mar 16	02:35:36	29110	-39626	T	0.6804	1.0439	34.6N	108.5W	47	198	03m41s
01944	26	-1186	Mar 27	10:13:06	28763	-39403	T	0.7399	1.0429	43.0N	130.6E	42	211	03m23s
01990	27	-1168	Apr 06	17:43:29	28419	-39180	T	0.8047	1.0409	52.2N	9.7E	36	229	02m59s
02036	28	-1150	Apr 18	01:06:16	28077	-38957	T	0.8751	1.0378	62.5N	113.9W	29	263	02m31s
02082	29	-1132	Apr 28	08:24:17	27736	-38734	T	0.9484	1.0331	72.9N	106.5E	18	360	01m58s
02127	30	-1114	May 09	15:35:44	27398	-38511	P	1.0262	0.9579	70.4N	75.9W	0		
02171	31	-1096	May 19	22:45:34	27062	-38288	P	1.1043	0.8104	69.6N	162.6E	0		
02214	32	-1078	May 31	05:51:56	26728	-38065	P	1.1844	0.6600	68.7N	42.7E	0		
02257	33	-1060	Jun 10	12:58:45	26396	-37842	P	1.2630	0.5134	67.7N	76.9W	0		
02300	34	-1042	Jun 21	20:05:00	26067	-37619	P	1.3408	0.3695	66.7N	164.3E	0		
02344	35	-1024	Jul 02	03:14:33	25739	-37396	P	1.4149	0.2339	65.7N	45.0E	0		
02386	36	-1006	Jul 13	10:26:39	25413	-37173	Pe	1.4859	0.1056	64.7N	74.5W	0		

SAROS SERIES

21

Saros series 21 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

----- -38 -2275 May 05 01:34:14 53401 -52871 Pb 1.5208 0.0130 61.0N 89.5W 0

----- -37 -2257 May 16 08:55:50 52931 -52648 P 1.4466 0.1572 61.4N 149.2E 0

----- -36 -2239 May 26 16:19:31 52464 -52425 P 1.3737 0.2989 61.9N 27.3E 0

----- -35 -2221 Jun 06 23:44:21 51998 -52202 P 1.3019 0.4386 62.6N 95.0W 0

----- -34 -2203 Jun 17 07:12:30 51535 -51979 P 1.2329 0.5728 63.3N 141.6E 0

----- -33 -2185 Jun 28 14:44:51 51074 -51756 P 1.1672 0.6998 64.2N 17.0E 0

----- -32 -2167 Jul 08 22:22:54 50615 -51533 P 1.1066 0.8165 65.1N 109.4W 0

----- -31 -2149 Jul 20 06:07:45 50158 -51310 P 1.0516 0.9212 66.1N 122.1E 0

----- -30 -2131 Jul 30 13:58:49 49703 -51087 T+ 1.0021 1.0147 67.2N 8.3W 0

----- -29 -2113 Aug 10 21:58:24 49250 -50864 T 0.9600 1.0493 82.0N 174.0W 16 610 02m32s

----- -28 -2095 Aug 21 06:05:21 48799 -50641 T 0.9244 1.0469 79.8N 0.1E 22 417 02m35s

----- -27 -2077 Sep 01 14:21:06 48350 -50418 T 0.8962 1.0437 73.6N 146.4W 26 332 02m34s

----- -26 -2059 Sep 11 22:43:46 47904 -50195 T 0.8743 1.0401 67.3N 77.0E 29 278 02m29s

----- -25 -2041 Sep 23 07:15:00 47459 -49972 T 0.8597 1.0363 61.7N 58.2W 30 239 02m23s

----- -24 -2023 Oct 03 15:51:58 47017 -49749 T 0.8505 1.0326 56.6N 166.3E 31 209 02m15s

----- -23 -2005 Oct 15 00:34:43 46576 -49526 T 0.8465 1.0292 52.2N 30.0E 32 185 02m07s

00030 -22 -1987 Oct 25 09:21:08 46138 -49303 T 0.8460 1.0260 48.3N 107.1W 32 165 01m58s

00073 -21 -1969 Nov 05 18:10:59 45701 -49080 T 0.8487 1.0233 45.1N 115.1E 32 149 01m51s

00116 -20 -1951 Nov 16 03:00:41 45267 -48857 T 0.8520 1.0211 42.4N 22.8W 31 137 01m44s

00159 -19 -1933 Nov 27 11:49:40 44835 -48634 T 0.8553 1.0194 40.1N 160.5W 31 128 01m39s

00203 -18 -1915 Dec 07 20:35:33 44405 -48411 T 0.8567 1.0182 38.2N 62.4E 31 121 01m36s

00247 -17 -1897 Dec 19 05:18:24 43977 -48188 T 0.8559 1.0176 36.5N 73.9W 31 117 01m35s

00292 -16 -1879 Dec 29 13:53:36 43551 -47965 T 0.8495 1.0175 34.7N 151.7E 32 114 01m36s

00338 -15 -1860 Jan 09 22:23:09 43127 -47742 T 0.8391 1.0178 33.0N 19.0E 33 112 01m39s

00384 -14 -1842 Jan 20 06:43:06 42705 -47519 T 0.8212 1.0185 31.3N 110.9W 35 110 01m43s

00430 -13 -1824 Jan 31 14:55:54 42285 -47296 T 0.7981 1.0194 29.8N 121.5E 37 109 01m47s
00475 -12 -1806 Feb 10 22:57:03 41868 -47073 T 0.7659 1.0204 28.3N 2.6W 40 106 01m51s
00522 -11 -1788 Feb 22 06:50:44 41452 -46850 T 0.7280 1.0213 27.2N 124.2W 43 104 01m55s
00567 -10 -1770 Mar 04 14:33:02 41039 -46627 T 0.6815 1.0220 26.4N 117.6E 47 100 01m57s
00612 -09 -1752 Mar 14 22:07:20 40627 -46404 T 0.6290 1.0224 26.0N 2.0E 51 96 01m57s
00657 -08 -1734 Mar 26 05:31:07 40218 -46181 T 0.5685 1.0223 25.9N 110.3W 55 91 01m56s
00704 -07 -1716 Apr 05 12:48:28 39810 -45958 T 0.5035 1.0218 26.2N 139.4E 60 85 01m52s
00749 -06 -1698 Apr 16 19:57:41 39405 -45735 T 0.4325 1.0206 26.5N 31.6E 64 77 01m47s
00793 -05 -1680 Apr 27 03:00:58 39002 -45512 T 0.3575 1.0188 26.7N 74.2W 69 68 01m39s
00835 -04 -1662 May 08 09:59:19 38601 -45289 H3 0.2795 1.0162 26.7N 178.6W 74 58 01m28s
00876 -03 -1644 May 18 16:54:40 38202 -45066 H 0.2002 1.0131 26.3N 78.1E 78 46 01m13s
00917 -02 -1626 May 29 23:48:06 37805 -44843 Hm 0.1201 1.0092 25.2N 24.8W 83 32 00m54s
00958 -01 -1608 Jun 09 06:40:23 37410 -44620 H 0.0401 1.0048 23.4N 127.6W 88 16 00m29s
00999 00 -1590 Jun 20 13:34:12 37017 -44397 A -0.0376 0.9997 20.8N 128.9E 88 1 00m02s
01040 01 -1572 Jun 30 20:30:31 36626 -44174 A -0.1120 0.9941 17.5N 24.3E 84 21 00m40s
01081 02 -1554 Jul 12 03:30:02 36238 -43951 A -0.1826 0.9882 13.4N 81.7W 80 42 01m24s
01121 03 -1536 Jul 22 10:35:03 35851 -43728 A -0.2477 0.9820 8.8N 170.2E 76 66 02m13s
01161 04 -1518 Aug 02 17:46:16 35467 -43505 A -0.3067 0.9756 3.7N 60.0E 72 92 03m03s
01201 05 -1500 Aug 13 01:05:13 35084 -43282 A -0.3582 0.9692 1.6S 52.6W 69 119 03m52s
01241 06 -1482 Aug 24 08:30:20 34704 -43059 A -0.4036 0.9628 7.3S 167.1W 66 147 04m37s
01281 07 -1464 Sep 03 16:04:01 34326 -42836 A -0.4408 0.9566 12.9S 76.0E 64 175 05m17s
01322 08 -1446 Sep 14 23:45:00 33949 -42613 A -0.4711 0.9508 18.5S 42.9W 62 203 05m50s
01363 09 -1428 Sep 25 07:33:38 33575 -42390 A -0.4941 0.9454 24.1S 163.5W 60 230 06m17s
01404 10 -1410 Oct 06 15:28:22 33203 -42167 A -0.5113 0.9405 29.5S 74.5E 59 255 06m39s
01445 11 -1392 Oct 16 23:29:12 32833 -41944 A -0.5228 0.9363 34.7S 48.4W 58 276 06m55s
01486 12 -1374 Oct 28 07:34:31 32465 -41721 A -0.5297 0.9326 39.7S 171.8W 58 295 07m08s
01528 13 -1356 Nov 07 15:41:51 32099 -41498 A -0.5343 0.9298 44.3S 65.2E 57 311 07m16s
01570 14 -1338 Nov 18 23:51:03 31736 -41275 A -0.5367 0.9275 48.5S 57.1W 57 323 07m22s

01613 15 -1320 Nov 29 07:59:09 31374 -41052 A -0.5398 0.9260 52.2S 177.8W 57 331 07m23s
 01657 16 -1302 Dec 10 16:05:12 31014 -40829 A -0.5439 0.9251 55.1S 63.5E 57 337 07m21s
 01701 17 -1284 Dec 21 00:05:44 30656 -40606 A -0.5523 0.9249 57.1S 52.5W 56 340 07m16s
 01746 18 -1265 Jan 01 08:01:37 30301 -40383 A -0.5640 0.9252 58.2S 166.4W 55 342 07m07s
 01792 19 -1247 Jan 11 15:49:47 29948 -40160 A -0.5821 0.9260 58.2S 81.9E 54 343 06m56s
 01837 20 -1229 Jan 22 23:29:05 29596 -39937 A -0.6069 0.9271 57.5S 27.9W 52 344 06m42s
 01882 21 -1211 Feb 02 06:58:40 29247 -39714 A -0.6394 0.9285 56.2S 136.0W 50 347 06m28s
 01927 22 -1193 Feb 13 14:18:41 28900 -39491 A -0.6793 0.9300 54.7S 117.5E 47 354 06m14s
 01972 23 -1175 Feb 23 21:28:39 28555 -39268 A -0.7271 0.9315 53.3S 13.0E 43 367 06m01s
 02019 24 -1157 Mar 07 04:27:59 28211 -39045 A -0.7833 0.9328 52.4S 88.9W 38 395 05m49s
 02065 25 -1139 Mar 17 11:18:25 27870 -38822 A -0.8464 0.9338 52.5S 171.8E 32 452 05m38s
 02110 26 -1121 Mar 28 17:59:56 27532 -38599 A -0.9160 0.9340 54.2S 77.1E 23 599 05m27s
 02155 27 -1103 Apr 08 00:33:22 27195 -38376 As -0.9919 0.9319 59.5S 0.9W 6 - 05m07s
 02198 28 -1085 Apr 19 07:00:27 26860 -38153 P -1.0725 0.8380 60.7S 95.9W 0
 02241 29 -1067 Apr 29 13:22:50 26527 -37930 P -1.1563 0.6953 61.1S 158.4E 0
 02284 30 -1049 May 10 19:42:41 26197 -37707 P -1.2419 0.5490 61.6S 53.1E 0
 02327 31 -1031 May 21 01:59:28 25868 -37484 P -1.3295 0.3988 62.2S 51.5W 0
 02370 32 -1013 Jun 01 08:18:06 25541 -37261 P -1.4151 0.2520 62.9S 156.7W 0
 02412 33 -0995 Jun 11 14:37:30 25217 -37038 Pe -1.4996 0.1068 63.8S 97.6E 0

SAROS SERIES

Saros series 22 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

°

km

ECLIPSE

-----34 -2174 May 28 16:19:32 50796 -51621 Pb -1.4759 0.1351 69.4S 178.6E 0

-----33 -2156 Jun 07 22:58:36 50338 -51398 P -1.4019 0.2675 68.6S 64.9E 0

-----32 -2138 Jun 19 05:38:30 49882 -51175 P -1.3285 0.3976 67.6S 48.6W 0

-----31 -2120 Jun 29 12:22:18 49428 -50952 P -1.2588 0.5200 66.6S 162.4W 0

-----30 -2102 Jul 10 19:10:02 48977 -50729 P -1.1926 0.6352 65.6S 83.2E 0

-----29 -2084 Jul 21 02:04:49 48527 -50506 P -1.1322 0.7389 64.6S 32.5W 0

-----28 -2066 Aug 01 09:06:16 48080 -50283 P -1.0775 0.8316 63.7S 149.5W 0

-----27 -2048 Aug 11 16:14:37 47634 -50060 P -1.0286 0.9135 62.8S 92.1E 0

-----26 -2030 Aug 22 23:31:56 47191 -49837 As -0.9874 0.9309 56.3S 17.1W 8 - 06m04s

-----25 -2012 Sep 02 06:57:27 46750 -49614 A -0.9532 0.9283 50.1S 127.4W 17 878 06m37s

00014 -24 -1994 Sep 13 14:32:00 46310 -49391 A -0.9265 0.9249 48.2S 116.1E 22 733 06m57s

00057 -23 -1976 Sep 23 22:12:57 45873 -49168 A -0.9053 0.9215 48.2S 2.8W 25 678 07m10s

00099 -22 -1958 Oct 05 06:02:20 45438 -48945 A -0.8914 0.9183 49.8S 124.6W 27 664 07m16s

00142 -21 -1940 Oct 15 13:56:25 45005 -48722 A -0.8816 0.9156 52.3S 112.2E 28 662 07m17s

00185 -20 -1922 Oct 26 21:55:31 44574 -48499 A -0.8763 0.9134 55.6S 12.7W 28 671 07m15s

00229 -19 -1904 Nov 06 05:56:20 44145 -48276 A -0.8727 0.9118 59.4S 138.0W 29 680 07m10s

00273 -18 -1886 Nov 17 13:59:10 43719 -48053 A -0.8709 0.9109 63.5S 96.4E 29 688 07m03s

00319	-17	-1868	Nov 27	22:00:10	43294	-47830	A	-0.8678	0.9107	67.8S	27.5W	29	686	06m55s
00366	-16	-1850	Dec 09	05:58:42	42871	-47607	A	-0.8628	0.9113	72.0S	148.4W	30	673	06m47s
00412	-15	-1832	Dec 19	13:52:26	42451	-47384	A	-0.8539	0.9126	76.0S	97.1E	31	646	06m40s
00457	-14	-1814	Dec 30	21:41:13	42032	-47161	A	-0.8414	0.9146	78.8S	6.8W	32	608	06m34s
00503	-13	-1795	Jan 10	05:21:00	41616	-46938	A	-0.8213	0.9173	79.0S	98.4W	34	556	06m29s
00549	-12	-1777	Jan 21	12:53:29	41201	-46715	A	-0.7951	0.9205	75.8S	166.7E	37	501	06m26s
00594	-11	-1759	Jan 31	20:15:58	40789	-46492	A	-0.7606	0.9242	70.3S	63.6E	40	443	06m25s
00639	-10	-1741	Feb 12	03:30:55	40379	-46269	A	-0.7199	0.9282	63.6S	43.9W	44	390	06m24s
00685	-09	-1723	Feb 22	10:33:54	39971	-46046	A	-0.6693	0.9324	56.1S	151.7W	48	340	06m23s
00731	-08	-1705	Mar 05	17:29:56	39565	-45823	A	-0.6127	0.9367	48.0S	100.7E	52	297	06m22s
00775	-07	-1687	Mar 16	00:15:31	39161	-45600	A	-0.5470	0.9410	39.5S	5.1W	57	260	06m20s
00819	-06	-1669	Mar 27	06:55:32	38759	-45377	A	-0.4766	0.9451	30.8S	109.9W	61	229	06m14s
00860	-05	-1651	Apr 06	13:26:49	38359	-45154	A	-0.3984	0.9490	21.9S	147.3E	66	203	06m06s
00901	-04	-1633	Apr 17	19:55:43	37961	-44931	A	-0.3178	0.9527	13.0S	45.3E	71	182	05m53s
00942	-03	-1615	Apr 28	02:19:23	37566	-44708	A	-0.2322	0.9558	4.1S	55.3W	77	165	05m37s
00983	-02	-1597	May 09	08:42:30	37172	-44485	A	-0.1455	0.9587	4.5N	155.3W	82	152	05m18s
01024	-01	-1579	May 19	15:04:38	36780	-44262	A	-0.0570	0.9609	12.9N	105.5E	87	142	04m58s
01065	00	-1561	May 30	21:29:33	36391	-44039	A	0.0299	0.9628	20.8N	6.4E	88	135	04m37s
01105	01	-1543	Jun 10	03:57:24	36004	-43816	Am	0.1152	0.9640	28.0N	92.6W	83	131	04m16s
01145	02	-1525	Jun 21	10:29:50	35618	-43593	A	0.1975	0.9649	34.5N	168.5E	78	129	03m58s
01185	03	-1507	Jul 01	17:09:19	35235	-43370	A	0.2750	0.9653	39.9N	69.1E	74	131	03m43s
01225	04	-1489	Jul 12	23:56:21	34854	-43147	A	0.3473	0.9653	44.1N	30.9W	69	134	03m31s
01265	05	-1471	Jul 23	06:52:23	34475	-42924	A	0.4129	0.9650	46.8N	132.1W	65	139	03m23s
01305	06	-1453	Aug 03	13:57:48	34098	-42701	A	0.4715	0.9644	48.0N	124.7E	62	145	03m18s
01347	07	-1435	Aug 13	21:14:14	33723	-42478	A	0.5219	0.9637	47.8N	18.5E	58	153	03m16s
01388	08	-1417	Aug 25	04:41:00	33350	-42255	A	0.5647	0.9630	46.4N	91.3W	55	161	03m16s
01429	09	-1399	Sep 04	12:17:50	32979	-42032	A	0.6000	0.9624	44.2N	155.2E	53	168	03m18s
01470	10	-1381	Sep 15	20:05:29	32610	-41809	A	0.6273	0.9620	41.3N	37.7E	51	174	03m21s

01512	11	-1363	Sep 26	04:03:15	32243	-41586	A	0.6468	0.9619	38.1N	83.5W	49	177	03m25s
01554	12	-1345	Oct 07	12:09:59	31879	-41363	A	0.6600	0.9623	34.7N	152.3E	49	178	03m27s
01597	13	-1327	Oct 17	20:24:07	31516	-41140	A	0.6680	0.9631	31.2N	25.6E	48	175	03m29s
01640	14	-1309	Oct 29	04:45:07	31156	-40917	A	0.6711	0.9645	27.9N	103.2W	48	169	03m28s
01683	15	-1291	Nov 08	13:11:12	30797	-40694	A	0.6710	0.9665	24.8N	126.5E	48	159	03m23s
01728	16	-1273	Nov 19	21:39:42	30441	-40471	A	0.6696	0.9691	22.1N	4.3W	48	147	03m13s
01773	17	-1255	Nov 30	06:10:01	30087	-40248	A	0.6676	0.9723	20.0N	135.5W	48	132	02m59s
01819	18	-1237	Dec 11	14:39:08	29735	-40025	A	0.6673	0.9762	18.6N	93.6E	48	113	02m37s
01864	19	-1219	Dec 21	23:06:55	29385	-39802	A	0.6690	0.9806	18.1N	36.8W	48	93	02m10s
01909	20	-1200	Jan 02	07:29:23	29036	-39579	A	0.6758	0.9855	18.7N	166.0W	47	70	01m37s
01954	21	-1182	Jan 12	15:48:15	28691	-39356	A	0.6863	0.9908	20.2N	65.7E	47	45	01m00s
02000	22	-1164	Jan 23	23:59:47	28347	-39133	A	0.7031	0.9964	22.9N	61.1W	45	18	00m23s
02046	23	-1146	Feb 03	08:04:56	28005	-38910	H	0.7262	1.0022	26.8N	173.3E	43	11	00m13s
02092	24	-1128	Feb 14	16:01:43	27665	-38687	H	0.7569	1.0080	31.8N	49.2E	41	42	00m46s
02137	25	-1110	Feb 24	23:52:12	27327	-38464	T	0.7934	1.0136	37.9N	74.1W	37	76	01m13s
02180	26	-1092	Mar 07	07:35:15	26992	-38241	T	0.8367	1.0189	45.1N	163.0E	33	117	01m33s
02223	27	-1074	Mar 18	15:11:17	26658	-38018	T	0.8864	1.0236	53.5N	39.4E	27	173	01m46s
02266	28	-1056	Mar 28	22:41:17	26327	-37795	T	0.9420	1.0272	63.3N	89.5W	19	278	01m49s
02309	29	-1038	Apr 09	06:06:26	25997	-37572	T+	1.0023	1.0034	71.6N	97.4E	0		
02353	30	-1020	Apr 19	13:27:40	25670	-37349	P	1.0665	0.8845	71.3N	28.0W	0		
02395	31	-1002	Apr 30	20:45:38	25345	-37126	P	1.1340	0.7582	70.8N	152.3W	0		
02436	32	-0984	May 11	04:02:43	25022	-36903	P	1.2030	0.6278	70.1N	84.2E	0		
02477	33	-0966	May 22	11:19:34	24701	-36680	P	1.2729	0.4947	69.3N	38.7W	0		
02518	34	-0948	Jun 01	18:37:02	24381	-36457	P	1.3428	0.3608	68.4N	161.2W	0		
02559	35	-0930	Jun 13	01:57:00	24064	-36234	P	1.4113	0.2293	67.4N	76.2E	0		
02599	36	-0912	Jun 23	09:20:02	23750	-36011	Pe	1.4777	0.1017	66.4N	46.7W	0		

SAROS SERIES

23

Saros series 23 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
GREATEST											°	km		
ECLIPSE														
----	-35	-2145	May 07	23:07:09	50062	-51263	Pb	1.4861	0.1208	61.0N	69.3W	0		
----	-34	-2127	May 18	05:40:35	49607	-51040	P	1.3995	0.2724	61.4N	178.4W	0		
----	-33	-2109	May 29	12:16:30	49155	-50817	P	1.3134	0.4241	62.0N	71.7E	0		
----	-32	-2091	Jun 08	18:56:30	48704	-50594	P	1.2291	0.5733	62.7N	39.3W	0		
----	-31	-2073	Jun 20	01:42:48	48256	-50371	P	1.1486	0.7164	63.5N	152.2W	0		
----	-30	-2055	Jun 30	08:36:18	47810	-50148	P	1.0728	0.8514	64.4N	92.9E	0		
----	-29	-2037	Jul 11	15:38:52	47366	-49925	A+	1.0028	0.9762	65.4N	24.6W	0		
----	-28	-2019	Jul 21	22:49:39	46924	-49702	A	0.9385	0.9781	86.0N	131.6W	20	232	01m20s
----	-27	-2001	Aug 02	06:11:20	46483	-49479	A	0.8821	0.9805	83.8N	50.9W	28	149	01m16s
00039	-26	-1983	Aug 12	13:43:07	46046	-49256	A	0.8332	0.9820	75.4N	168.1W	33	116	01m15s
00082	-25	-1965	Aug 23	21:25:13	45610	-49033	A	0.7919	0.9831	67.9N	73.2E	37	98	01m14s

00125	-24	-1947	Sep 03	05:17:59	45176	-48810	A	0.7585	0.9839	61.0N	48.4W	40	88	01m15s
00168	-23	-1929	Sep 14	13:20:52	44744	-48587	A	0.7326	0.9846	54.7N	172.8W	43	80	01m14s
00211	-22	-1911	Sep 24	21:33:45	44314	-48364	A	0.7144	0.9854	48.8N	60.2E	44	73	01m14s
00255	-21	-1893	Oct 06	05:53:28	43887	-48141	A	0.7011	0.9865	43.4N	68.7W	45	67	01m11s
00300	-20	-1875	Oct 16	14:21:40	43461	-47918	A	0.6941	0.9877	38.6N	160.3E	46	60	01m07s
00347	-19	-1857	Oct 27	22:54:36	43038	-47695	A	0.6901	0.9895	34.3N	28.1E	46	51	00m59s
00393	-18	-1839	Nov 07	07:32:22	42616	-47472	A	0.6895	0.9917	30.5N	105.4W	46	40	00m48s
00439	-17	-1821	Nov 18	16:10:47	42197	-47249	A	0.6886	0.9945	27.2N	120.9E	46	26	00m33s
00485	-16	-1803	Nov 29	00:51:05	41780	-47026	A	0.6885	0.9979	24.4N	13.2W	46	10	00m13s
00532	-15	-1785	Dec 10	09:29:08	41365	-46803	H	0.6857	1.0019	22.0N	146.8W	47	9	00m12s
00577	-14	-1767	Dec 20	18:04:43	40952	-46580	H	0.6801	1.0065	20.0N	80.3E	47	31	00m41s
00622	-13	-1748	Jan 01	02:35:12	40541	-46357	H	0.6695	1.0117	18.2N	51.2W	48	54	01m12s
00667	-12	-1730	Jan 11	11:00:39	40132	-46134	T	0.6541	1.0173	16.8N	178.8E	49	78	01m46s
00714	-11	-1712	Jan 22	19:18:39	39725	-45911	T	0.6319	1.0233	15.7N	50.9E	51	102	02m19s
00758	-10	-1694	Feb 02	03:29:44	39320	-45688	T	0.6032	1.0296	14.8N	75.0W	53	125	02m51s
00802	-09	-1676	Feb 13	11:32:52	38917	-45465	T	0.5673	1.0361	14.3N	161.5E	55	146	03m21s
00843	-08	-1658	Feb 23	19:29:26	38517	-45242	T	0.5250	1.0425	14.1N	40.0E	58	165	03m48s
00884	-07	-1640	Mar 06	03:16:50	38118	-45019	T	0.4746	1.0488	14.2N	78.8W	62	182	04m13s
00925	-06	-1622	Mar 17	10:58:47	37722	-44796	T	0.4190	1.0548	14.7N	164.1E	65	197	04m35s
00966	-05	-1604	Mar 27	18:33:35	37327	-44573	T	0.3569	1.0603	15.3N	49.2E	69	211	04m56s
01008	-04	-1586	Apr 08	02:05:05	36935	-44350	T	0.2911	1.0653	16.0N	64.6W	73	222	05m16s
01049	-03	-1568	Apr 18	09:30:17	36544	-44127	T	0.2195	1.0696	16.6N	176.5W	77	232	05m35s
01090	-02	-1550	Apr 29	16:54:59	36156	-43904	T	0.1468	1.0731	17.0N	71.9E	81	240	05m54s
01130	-01	-1532	May 10	00:16:30	35770	-43681	T	0.0711	1.0758	17.0N	38.7W	86	246	06m12s
01169	00	-1514	May 21	07:39:13	35386	-43458	T	-0.0042	1.0776	16.5N	149.6W	90	251	06m29s
01209	01	-1496	May 31	15:00:53	35004	-43235	Tm	-0.0807	1.0785	15.2N	99.7E	85	254	06m44s
01249	02	-1478	Jun 11	22:26:44	34624	-43012	T	-0.1541	1.0785	13.2N	12.4W	81	257	06m57s
01289	03	-1460	Jun 22	05:54:44	34246	-42789	T	-0.2256	1.0776	10.4N	125.4W	77	257	07m04s

01330 04 -1442 Jul 03 13:27:32 33870 -42566 T -0.2933 1.0760 6.9N 119.9E 73 257 07m05s
01371 05 -1424 Jul 13 21:05:32 33497 -42343 T -0.3564 1.0736 2.8N 3.4E 69 256 06m58s
01413 06 -1406 Jul 25 04:50:26 33125 -42120 T -0.4136 1.0707 1.8S 115.5W 66 252 06m42s
01454 07 -1388 Aug 04 12:42:32 32755 -41897 T -0.4648 1.0672 6.8S 123.4E 62 247 06m19s
01496 08 -1370 Aug 15 20:41:22 32388 -41674 T -0.5101 1.0633 12.1S 0.2E 59 241 05m51s
01538 09 -1352 Aug 26 04:48:59 32022 -41451 T -0.5478 1.0592 17.5S 125.6W 57 232 05m20s
01580 10 -1334 Sep 06 13:04:19 31659 -41228 T -0.5790 1.0551 22.9S 106.6E 54 222 04m48s
01623 11 -1316 Sep 16 21:27:43 31298 -41005 T -0.6034 1.0510 28.3S 23.3W 53 211 04m18s
01667 12 -1298 Sep 28 05:58:24 30939 -40782 T -0.6217 1.0471 33.7S 154.9W 51 199 03m50s
01711 13 -1280 Oct 08 14:36:40 30581 -40559 T -0.6338 1.0435 38.9S 72.1E 50 187 03m26s
01755 14 -1262 Oct 19 23:20:22 30226 -40336 T -0.6412 1.0404 43.8S 61.7W 50 175 03m05s
01801 15 -1244 Oct 30 08:08:04 29873 -40113 T -0.6452 1.0377 48.6S 164.5E 50 165 02m48s
01846 16 -1226 Nov 10 16:59:00 29522 -39890 T -0.6465 1.0355 53.1S 31.0E 49 156 02m34s
01891 17 -1208 Nov 21 01:51:47 29174 -39667 T -0.6463 1.0337 57.1S 101.3W 49 149 02m24s
01936 18 -1190 Dec 02 10:43:27 28827 -39444 T -0.6469 1.0326 60.6S 128.7E 49 145 02m17s
01982 19 -1172 Dec 12 19:33:06 28482 -39221 T -0.6490 1.0317 63.2S 1.3E 49 142 02m12s
02029 20 -1154 Dec 24 04:18:39 28139 -38998 T -0.6543 1.0314 64.7S 123.2W 49 141 02m09s
02075 21 -1135 Jan 03 12:59:50 27799 -38775 T -0.6630 1.0314 64.9S 114.2E 48 142 02m08s
02120 22 -1117 Jan 14 21:32:42 27460 -38552 T -0.6783 1.0316 64.1S 6.7W 47 145 02m08s
02164 23 -1099 Jan 25 05:59:25 27124 -38329 T -0.6985 1.0318 62.4S 127.4W 45 150 02m08s
02207 24 -1081 Feb 05 14:16:06 26790 -38106 T -0.7266 1.0320 60.4S 113.0E 43 157 02m08s
02250 25 -1063 Feb 15 22:25:15 26457 -37883 T -0.7605 1.0320 58.2S 6.0W 40 165 02m07s
02293 26 -1045 Feb 27 06:23:22 26127 -37660 T -0.8033 1.0315 56.4S 122.7W 36 177 02m05s
02337 27 -1027 Mar 09 14:14:08 25799 -37437 T -0.8517 1.0305 55.3S 122.4E 31 194 02m00s
02379 28 -1009 Mar 20 21:54:33 25473 -37214 T -0.9081 1.0286 55.6S 11.6E 24 228 01m52s
02421 29 -0991 Mar 31 05:27:07 25149 -36991 T -0.9705 1.0250 58.0S 91.2W 13 357 01m34s
02461 30 -0973 Apr 11 12:51:12 24827 -36768 P -1.0390 0.9324 60.7S 173.4E 0
02502 31 -0955 Apr 21 20:09:28 24507 -36545 P -1.1115 0.7966 60.9S 53.8E 0

02543 32 -0937 May 03 03:21:34 24189 -36322 P -1.1882 0.6532 61.3S 64.4W 0

02583 33 -0919 May 13 10:28:46 23874 -36099 P -1.2677 0.5051 61.8S 178.5E 0

02623 34 -0901 May 24 17:32:58 23560 -35876 P -1.3484 0.3556 62.5S 62.0E 0

02663 35 -0883 Jun 04 00:35:08 23248 -35653 P -1.4293 0.2069 63.3S 54.2W 0

02704 36 -0865 Jun 15 07:36:22 22939 -35430 Pe -1.5097 0.0606 64.1S 170.4W 0

SAROS SERIES

24

Saros series 24 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
-----38	-2134	Apr 06	22:57:40	49786	-51128	Pb	-1.5196	0.0159	71.4S	137.5E	0		
-----37	-2116	Apr 17	06:26:08	49333	-50905	P	-1.4522	0.1459	71.4S	9.6E	0		
-----36	-2098	Apr 28	13:51:05	48882	-50682	P	-1.3815	0.2830	71.1S	117.2W	0		
-----35	-2080	May 08	21:15:05	48433	-50459	P	-1.3099	0.4224	70.7S	116.5E	0		
-----34	-2062	May 20	04:37:14	47986	-50236	P	-1.2367	0.5650	70.0S	8.9W	0		

----- -33 -2044 May 30 12:01:48 47541 -50013 P -1.1652 0.7042 69.2S 134.4W 0

----- -32 -2026 Jun 10 19:27:24 47098 -49790 P -1.0943 0.8417 68.3S 100.5E 0

----- -31 -2008 Jun 21 02:56:54 46657 -49567 P -1.0267 0.9721 67.3S 25.1W 0

00023 -30 -1990 Jul 02 10:30:06 46218 -49344 T -0.9623 1.0609 51.2S 149.5W 15 756 04m30s

00066 -29 -1972 Jul 12 18:09:32 45781 -49121 T -0.9033 1.0603 40.7S 89.6E 25 464 04m50s

00109 -28 -1954 Jul 24 01:54:42 45347 -48898 T -0.8494 1.0580 34.1S 31.5W 32 361 04m51s

00152 -27 -1936 Aug 03 09:46:19 44914 -48675 T -0.8011 1.0548 29.8S 153.4W 37 300 04m40s

00195 -26 -1918 Aug 14 17:45:39 44484 -48452 T -0.7596 1.0510 27.3S 83.1E 40 256 04m21s

00239 -25 -1900 Aug 25 01:52:52 44055 -48229 T -0.7250 1.0467 26.4S 42.2W 43 222 03m56s

00283 -24 -1882 Sep 05 10:07:48 43629 -48006 T -0.6972 1.0423 26.8S 169.2W 46 193 03m30s

00329 -23 -1864 Sep 15 18:30:18 43205 -47783 T -0.6763 1.0377 28.4S 61.8E 47 168 03m03s

00375 -22 -1846 Sep 27 02:59:55 42782 -47560 T -0.6615 1.0333 31.0S 68.9W 48 147 02m38s

00421 -21 -1828 Oct 07 11:36:07 42362 -47337 T -0.6527 1.0290 34.4S 158.7E 49 127 02m15s

00466 -20 -1810 Oct 18 20:16:20 41944 -47114 T -0.6476 1.0251 38.4S 25.5E 49 110 01m54s

00513 -19 -1792 Oct 29 05:01:32 41528 -46891 T -0.6471 1.0216 42.9S 108.8W 49 95 01m36s

00559 -18 -1774 Nov 09 13:48:09 41114 -46668 T -0.6486 1.0186 47.5S 117.2E 49 83 01m22s

00604 -17 -1756 Nov 19 22:36:12 40703 -46445 T -0.6516 1.0162 52.1S 16.4W 49 73 01m10s

00649 -16 -1738 Dec 01 07:21:07 40293 -46222 T -0.6526 1.0142 56.4S 147.5W 49 64 01m01s

00695 -15 -1720 Dec 11 16:04:48 39885 -45999 H3 -0.6533 1.0129 60.1S 83.5E 49 58 00m55s

00741 -14 -1702 Dec 23 00:42:38 39479 -45776 H -0.6502 1.0120 62.7S 41.6W 49 54 00m51s

00785 -13 -1683 Jan 02 09:14:40 39076 -45553 H -0.6429 1.0116 63.7S 163.3W 50 52 00m50s

00827 -12 -1665 Jan 13 17:38:08 38674 -45330 H -0.6296 1.0115 62.8S 77.6E 51 51 00m51s

00868 -11 -1647 Jan 24 01:53:47 38275 -45107 H -0.6104 1.0117 60.1S 41.1W 52 51 00m53s

00909 -10 -1629 Feb 04 09:59:41 37878 -44884 H -0.5842 1.0121 55.8S 159.8W 54 51 00m57s

00950 -09 -1611 Feb 14 17:55:34 37482 -44661 H -0.5506 1.0125 50.2S 81.6E 56 52 01m01s

00991 -08 -1593 Feb 26 01:41:29 37089 -44438 H -0.5096 1.0128 43.8S 36.3W 59 51 01m06s

01033 -07 -1575 Mar 08 09:17:47 36698 -44215 H -0.4614 1.0130 36.7S 153.2W 62 50 01m10s

01074 -06 -1557 Mar 19 16:43:59 36309 -43992 H -0.4056 1.0128 29.2S 91.6E 66 48 01m13s

01114 -05 -1539 Mar 30 00:01:51 35922 -43769 H -0.3438 1.0122 21.2S 21.9W 70 45 01m13s
01154 -04 -1521 Apr 10 07:11:26 35537 -43546 H -0.2758 1.0112 13.1S 133.6W 74 40 01m09s
01194 -03 -1503 Apr 20 14:15:00 35154 -43323 H -0.2038 1.0095 4.9S 116.2E 78 33 01m01s
01234 -02 -1485 May 01 21:11:15 34774 -43100 Hm -0.1265 1.0072 3.4N 8.0E 83 25 00m47s
01274 -01 -1467 May 12 04:04:18 34395 -42877 H -0.0476 1.0043 11.4N 99.0W 87 15 00m29s
01314 00 -1449 May 23 10:52:54 34018 -42654 H 0.0344 1.0008 19.3N 155.7E 88 3 00m05s
01355 01 -1431 Jun 02 17:41:14 33644 -42431 A 0.1153 0.9967 26.7N 51.3E 83 12 00m22s
01396 02 -1413 Jun 14 00:27:17 33271 -42208 A 0.1970 0.9919 33.5N 51.5W 78 29 00m51s
01437 03 -1395 Jun 24 07:16:36 32901 -41985 A 0.2749 0.9867 39.5N 153.8W 74 49 01m21s
01479 04 -1377 Jul 05 14:07:10 32533 -41762 A 0.3510 0.9810 44.5N 105.1E 69 72 01m51s
01521 05 -1359 Jul 15 21:02:47 32166 -41539 A 0.4217 0.9751 48.2N 4.0E 65 98 02m20s
01563 06 -1341 Jul 27 04:02:45 31802 -41316 A 0.4878 0.9688 50.5N 97.2W 61 129 02m50s
01606 07 -1323 Aug 06 11:10:03 31440 -41093 A 0.5468 0.9625 51.3N 160.1E 57 162 03m20s
01650 08 -1305 Aug 17 18:24:18 31080 -40870 A 0.5994 0.9561 50.8N 55.0E 53 198 03m51s
01693 09 -1287 Aug 28 01:45:37 30722 -40647 A 0.6455 0.9499 49.4N 53.0W 50 238 04m23s
01738 10 -1269 Sep 08 09:15:41 30366 -40424 A 0.6835 0.9439 47.3N 164.7W 47 279 04m58s
01783 11 -1251 Sep 18 16:53:26 30012 -40201 A 0.7145 0.9384 44.8N 80.3E 44 319 05m34s
01828 12 -1233 Sep 30 00:39:28 29661 -39978 A 0.7381 0.9334 42.0N 38.0W 42 359 06m12s
01873 13 -1215 Oct 10 08:31:20 29311 -39755 A 0.7562 0.9289 39.3N 158.6W 41 395 06m53s
01918 14 -1197 Oct 21 16:29:48 28963 -39532 A 0.7685 0.9251 36.7N 78.3E 40 427 07m35s
01963 15 -1179 Nov 01 00:31:51 28618 -39309 A 0.7772 0.9220 34.2N 46.0W 39 454 08m17s
02010 16 -1161 Nov 12 08:36:42 28274 -39086 A 0.7830 0.9196 32.1N 171.4W 38 476 08m58s
02056 17 -1143 Nov 22 16:42:10 27933 -38863 A 0.7876 0.9179 30.5N 63.0E 38 494 09m36s
02102 18 -1125 Dec 04 00:47:19 27594 -38640 A 0.7917 0.9169 29.4N 62.5W 37 508 10m07s
02147 19 -1107 Dec 14 08:49:04 27256 -38417 A 0.7982 0.9166 29.2N 172.8E 37 522 10m27s
02190 20 -1089 Dec 25 16:46:10 26921 -38194 A 0.8081 0.9168 29.9N 49.2E 36 536 10m34s
02233 21 -1070 Jan 05 00:37:10 26588 -37971 A 0.8224 0.9175 31.8N 73.1W 34 552 10m26s
02276 22 -1052 Jan 16 08:21:39 26257 -37748 A 0.8413 0.9186 34.7N 165.9E 32 573 10m03s

02319	23	-1034	Jan 26	15:55:58	25928	-37525	A	0.8683	0.9199	39.3N	46.8E	29	613	09m25s
02362	24	-1016	Feb 06	23:22:20	25601	-37302	A	0.9013	0.9213	45.3N	71.5W	25	689	08m37s
02404	25	-0998	Feb 17	06:37:53	25276	-37079	A	0.9430	0.9224	53.6N	170.2E	19	889	07m41s
02445	26	-0980	Feb 28	13:45:50	24954	-36856	An	0.9904	0.9221	66.3N	41.7E	7	-	06m33s
02486	27	-0962	Mar 10	20:41:34	24633	-36633	P	1.0474	0.8764	71.4N	90.2W	0		
02527	28	-0944	Mar 21	03:30:52	24314	-36410	P	1.1093	0.7726	71.8N	152.3E	0		
02568	29	-0926	Apr 01	10:10:07	23998	-36187	P	1.1791	0.6547	71.8N	37.1E	0		
02608	30	-0908	Apr 11	16:44:07	23683	-35964	P	1.2526	0.5298	71.6N	76.7W	0		
02647	31	-0890	Apr 22	23:10:40	23371	-35741	P	1.3319	0.3944	71.2N	171.6E	0		
02688	32	-0872	May 03	05:35:02	23061	-35518	P	1.4124	0.2562	70.6N	61.0E	0		
02729	33	-0854	May 14	11:55:47	22753	-35295	Pe	1.4956	0.1129	69.9N	48.1W	0		

SAROS SERIES

25

Saros series 25 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	

ECLIPSE

----- -34 -2033 Apr 30 13:34:53 47272 -49878 Pb 1.4812 0.1269 60.9N 67.4E 0

----- -33 -2015 May 10 20:11:10 46831 -49655 P 1.4039 0.2645 61.3N 42.4W 0

00006 -32 -1997 May 22 02:45:35 46391 -49432 P 1.3253 0.4035 61.7N 151.7W 0

00049 -31 -1979 Jun 01 09:17:39 45953 -49209 P 1.2453 0.5442 62.3N 99.3E 0

00091 -30 -1961 Jun 12 15:51:46 45518 -48986 P 1.1676 0.6797 63.1N 10.3W 0

00134 -29 -1943 Jun 22 22:27:06 45085 -48763 P 1.0914 0.8113 63.9N 120.4W 0

00177 -28 -1925 Jul 04 05:07:17 44653 -48540 P 1.0195 0.9342 64.8N 128.0E 0

00221 -27 -1907 Jul 14 11:50:45 44224 -48317 A 0.9506 0.9452 82.7N 36.3E 18 673 03m30s

00265 -26 -1889 Jul 25 18:42:25 43797 -48094 A 0.8889 0.9427 86.2N 90.3E 27 470 04m01s

00310 -25 -1871 Aug 05 01:40:13 43372 -47871 A 0.8327 0.9393 77.5N 4.6W 33 410 04m37s

00357 -24 -1853 Aug 16 08:46:38 42949 -47648 A 0.7840 0.9356 69.7N 111.7W 38 388 05m17s

00403 -23 -1835 Aug 26 16:01:09 42528 -47425 A 0.7422 0.9317 62.4N 137.4E 42 381 06m00s

00448 -22 -1817 Sep 06 23:25:42 42109 -47202 A 0.7087 0.9279 55.6N 23.3E 45 382 06m45s

00494 -21 -1799 Sep 17 06:58:25 41692 -46979 A 0.6823 0.9244 49.3N 93.2W 47 388 07m32s

00541 -20 -1781 Sep 28 14:39:03 41278 -46756 A 0.6625 0.9211 43.4N 148.1E 48 395 08m19s

00586 -19 -1763 Oct 08 22:26:39 40865 -46533 A 0.6488 0.9183 38.1N 27.5E 49 403 09m05s

00631 -18 -1745 Oct 20 06:21:00 40454 -46310 A 0.6405 0.9160 33.2N 94.8W 50 411 09m50s

00677 -17 -1727 Oct 30 14:18:33 40046 -46087 A 0.6350 0.9144 28.9N 142.0E 50 418 10m32s

00724 -16 -1709 Nov 10 22:19:39 39639 -45864 A 0.6325 0.9133 25.1N 18.0E 51 423 11m10s

00768 -15 -1691 Nov 21 06:20:30 39235 -45641 A 0.6297 0.9131 21.7N 105.9W 51 424 11m40s

00812 -14 -1673 Dec 02 14:21:47 38833 -45418 A 0.6274 0.9135 18.9N 130.1E 51 423 12m00s

00852 -13 -1655 Dec 12 22:17:54 38432 -45195 A 0.6207 0.9147 16.4N 7.5E 52 414 12m07s

00893 -12 -1637 Dec 24 06:11:25 38034 -44972 A 0.6119 0.9165 14.4N 114.4W 52 401 11m58s

00934 -11 -1618 Jan 03 13:57:11 37638 -44749 A 0.5961 0.9190 12.6N 125.9E 53 382 11m34s

00975 -10 -1600 Jan 14 21:36:47 37244 -44526 A 0.5753 0.9221 11.3N 7.9E 55 358 10m55s

01016	-09	-1582	Jan 25	05:06:22	36852	-44303	A	0.5459	0.9257	10.1N	107.3W	57	331	10m07s
01057	-08	-1564	Feb 05	12:29:02	36462	-44080	A	0.5104	0.9297	9.3N	139.6E	59	303	09m13s
01098	-07	-1546	Feb 15	19:41:55	36075	-43857	A	0.4660	0.9340	8.8N	29.3E	62	275	08m17s
01138	-06	-1528	Feb 27	02:45:44	35689	-43634	A	0.4139	0.9385	8.6N	78.4W	65	248	07m24s
01178	-05	-1510	Mar 09	09:40:57	35305	-43411	A	0.3540	0.9430	8.6N	176.4E	69	223	06m36s
01218	-04	-1492	Mar 19	16:28:54	34924	-43188	A	0.2876	0.9476	8.9N	73.4E	73	200	05m54s
01258	-03	-1474	Mar 30	23:10:04	34544	-42965	A	0.2149	0.9519	9.3N	27.6W	78	180	05m17s
01298	-02	-1456	Apr 10	05:45:20	34167	-42742	A	0.1365	0.9560	9.5N	126.9W	82	162	04m47s
01339	-01	-1438	Apr 21	12:16:55	33791	-42519	A	0.0544	0.9598	9.6N	134.9E	87	146	04m24s
01380	00	-1420	May 01	18:45:54	33418	-42296	A	-0.0302	0.9631	9.3N	37.4E	88	134	04m05s
01421	01	-1402	May 13	01:12:48	33047	-42073	Am	-0.1173	0.9660	8.3N	59.6W	83	123	03m51s
01462	02	-1384	May 23	07:40:49	32678	-41850	A	-0.2042	0.9684	6.6N	157.0W	78	116	03m41s
01504	03	-1366	Jun 03	14:10:48	32311	-41627	A	-0.2899	0.9703	4.2N	104.7E	73	111	03m35s
01546	04	-1348	Jun 13	20:45:31	31946	-41404	A	-0.3727	0.9716	1.0N	4.8E	68	109	03m31s
01589	05	-1330	Jun 25	03:24:08	31583	-41181	A	-0.4528	0.9724	3.1S	96.6W	63	110	03m29s
01632	06	-1312	Jul 05	10:11:12	31222	-40958	A	-0.5266	0.9728	7.8S	159.1E	58	115	03m27s
01676	07	-1294	Jul 16	17:05:20	30863	-40735	A	-0.5951	0.9727	13.2S	52.5E	53	122	03m24s
01721	08	-1276	Jul 27	00:09:29	30506	-40512	A	-0.6565	0.9724	18.9S	57.4W	49	131	03m20s
01765	09	-1258	Aug 07	07:22:11	30152	-40289	A	-0.7115	0.9717	25.1S	170.1W	44	144	03m15s
01811	10	-1240	Aug 17	14:46:51	29799	-40066	A	-0.7576	0.9709	31.2S	73.5E	41	159	03m08s
01856	11	-1222	Aug 28	22:21:32	29449	-39843	A	-0.7961	0.9701	37.4S	45.9W	37	176	03m01s
01900	12	-1204	Sep 08	06:06:41	29100	-39620	A	-0.8269	0.9694	43.4S	168.5W	34	194	02m53s
01945	13	-1186	Sep 19	14:02:28	28754	-39397	A	-0.8498	0.9689	49.0S	65.9E	31	210	02m44s
01991	14	-1168	Sep 29	22:08:02	28410	-39174	A	-0.8658	0.9689	54.3S	62.2W	30	222	02m34s
02037	15	-1150	Oct 11	06:22:22	28067	-38951	A	-0.8750	0.9693	59.2S	167.8E	29	227	02m24s
02083	16	-1132	Oct 21	14:42:46	27727	-38728	A	-0.8802	0.9703	63.8S	36.7E	28	225	02m12s
02129	17	-1114	Nov 01	23:10:13	27389	-38505	A	-0.8802	0.9718	68.2S	94.9W	28	214	02m00s
02173	18	-1096	Nov 12	07:41:19	27053	-38282	A	-0.8784	0.9740	72.5S	134.2E	28	196	01m47s

02216 19 -1078 Nov 23 16:15:17 26719 -38059 A -0.8749 0.9769 76.7S 6.0E 29 172 01m33s
 02259 20 -1060 Dec 04 00:49:12 26387 -37836 A -0.8723 0.9803 80.7S 116.1W 29 145 01m17s
 02302 21 -1042 Dec 15 09:22:50 26058 -37613 A -0.8709 0.9842 83.7S 137.8E 29 115 01m00s
 02346 22 -1024 Dec 25 17:53:24 25730 -37390 A -0.8728 0.9887 84.0S 51.1E 29 83 00m43s
 02388 23 -1005 Jan 06 02:19:53 25404 -37167 A -0.8789 0.9935 81.2S 49.1W 28 48 00m24s
 02429 24 -0987 Jan 16 10:41:05 25081 -36944 A -0.8905 0.9986 77.4S 163.8W 27 11 00m05s
 02470 25 -0969 Jan 27 18:56:26 24759 -36721 H -0.9078 1.0037 73.5S 77.3E 24 31 00m13s
 02511 26 -0951 Feb 07 03:04:01 24440 -36498 T -0.9323 1.0088 69.9S 40.5W 21 85 00m31s
 02552 27 -0933 Feb 18 11:04:47 24123 -36275 T -0.9632 1.0132 66.6S 154.5W 15 174 00m45s
 02592 28 -0915 Feb 28 18:57:40 23807 -36052 T- -1.0012 1.0004 61.2S 110.1E 0
 02632 29 -0897 Mar 12 02:44:40 23494 -35829 P -1.0451 0.9213 60.9S 16.7W 0
 02672 30 -0879 Mar 22 10:22:52 23183 -35606 P -1.0967 0.8267 60.8S 141.3W 0
 02713 31 -0861 Apr 02 17:57:00 22874 -35383 P -1.1523 0.7235 60.7S 95.1E 0
 02753 32 -0843 Apr 13 01:24:30 22567 -35160 P -1.2136 0.6080 60.9S 26.8W 0
 02793 33 -0825 Apr 24 08:49:55 22262 -34937 P -1.2774 0.4868 61.2S 148.2W 0
 02834 34 -0807 May 04 16:10:16 21959 -34714 P -1.3456 0.3560 61.6S 91.5E 0
 02875 35 -0789 May 15 23:31:19 21658 -34491 P -1.4139 0.2244 62.2S 29.1W 0
 02916 36 -0771 May 26 06:50:24 21360 -34268 Pe -1.4838 0.0890 62.8S 149.4W 0

SAROS SERIES

Saros series 26 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
-----35	-2004	Apr 08	20:14:58	46564	-49520	Pb	-1.4845	0.1235	71.6S	160.4E	0		
00032	-34	-1986	Apr 20	02:55:09	46126	-49297	P	-1.4035	0.2645	71.5S	44.6E	0	
00075	-33	-1968	Apr 30	09:34:02	45690	-49074	P	-1.3203	0.4110	71.2S	70.6W	0	
00118	-32	-1950	May 11	16:12:21	45255	-48851	P	-1.2352	0.5621	70.6S	174.6E	0	
00161	-31	-1932	May 21	22:52:55	44823	-48628	P	-1.1505	0.7135	69.9S	59.9E	0	
00204	-30	-1914	Jun 02	05:36:42	44393	-48405	P	-1.0668	0.8639	69.0S	55.2W	0	
00248	-29	-1896	Jun 12	12:24:24	43965	-48182	A	-0.9851	0.9821	59.4S	174.8W	9	402 01m29s
00293	-28	-1878	Jun 23	19:18:52	43539	-47959	A	-0.9074	0.9881	42.6S	71.0E	24	101 01m09s
00339	-27	-1860	Jul 04	02:20:00	43116	-47736	A	-0.8339	0.9917	32.9S	40.2W	33	53 00m52s
00385	-26	-1842	Jul 15	09:30:31	42694	-47513	A	-0.7668	0.9941	26.0S	152.4W	40	32 00m38s
00431	-25	-1824	Jul 25	16:48:41	42274	-47290	A	-0.7049	0.9959	21.1S	94.4E	45	20 00m26s
00476	-24	-1806	Aug 06	00:18:42	41856	-47067	A	-0.6514	0.9971	17.9S	21.3W	49	13 00m18s
00523	-23	-1788	Aug 16	07:57:40	41441	-46844	A	-0.6041	0.9980	16.2S	138.8W	53	9 00m12s
00568	-22	-1770	Aug 27	15:48:22	41028	-46621	A	-0.5657	0.9986	16.0S	100.9E	55	6 00m08s
00613	-21	-1752	Sep 06	23:48:10	40616	-46398	A	-0.5338	0.9991	17.0S	21.6W	58	4 00m05s
00658	-20	-1734	Sep 18	07:59:14	40207	-46175	A	-0.5105	0.9995	19.1S	146.9W	59	2 00m03s
00705	-19	-1716	Sep 28	16:18:00	39799	-45952	H	-0.4927	1.0002	22.0S	85.8E	60	1 00m01s
00750	-18	-1698	Oct 10	00:44:55	39394	-45729	H	-0.4809	1.0011	25.6S	43.4W	61	4 00m06s
00794	-17	-1680	Oct 20	09:17:56	38991	-45506	H	-0.4736	1.0023	29.7S	174.1W	62	9 00m12s
00836	-16	-1662	Oct 31	17:56:59	38590	-45283	H	-0.4710	1.0040	34.1S	54.1E	62	15 00m20s
00877	-15	-1644	Nov 11	02:38:09	38191	-45060	H	-0.4694	1.0062	38.5S	77.6W	62	24 00m30s

00918 -14 -1626 Nov 22 11:21:31 37794 -44837 H -0.4691 1.0089 42.6S 150.9E 62 35 00m43s
00959 -13 -1608 Dec 02 20:03:58 37399 -44614 H -0.4676 1.0122 46.2S 20.8E 62 48 00m59s
01000 -12 -1590 Dec 14 04:45:51 37007 -44391 T -0.4650 1.0161 49.0S 108.1W 62 62 01m16s
01041 -11 -1572 Dec 24 13:22:36 36616 -44168 T -0.4577 1.0206 50.4S 125.5E 63 79 01m37s
01082 -10 -1553 Jan 04 21:56:12 36227 -43945 T -0.4474 1.0254 50.5S 0.3E 63 97 02m01s
01122 -09 -1535 Jan 15 06:22:23 35841 -43722 T -0.4303 1.0308 49.0S 123.2W 64 115 02m27s
01162 -08 -1517 Jan 26 14:43:34 35456 -43499 T -0.4084 1.0364 46.0S 113.6E 66 134 02m56s
01202 -07 -1499 Feb 05 22:55:25 35074 -43276 T -0.3784 1.0421 41.7S 8.7W 68 152 03m28s
01242 -06 -1481 Feb 17 07:01:44 34694 -43053 T -0.3430 1.0480 36.3S 131.0W 70 170 04m01s
01282 -05 -1463 Feb 27 14:59:01 34315 -42830 T -0.2999 1.0537 30.1S 107.8E 72 186 04m35s
01323 -04 -1445 Mar 10 22:49:45 33939 -42607 T -0.2507 1.0593 23.2S 12.6W 75 201 05m10s
01364 -03 -1427 Mar 21 06:32:50 33565 -42384 T -0.1946 1.0643 15.9S 131.8W 79 214 05m41s
01405 -02 -1409 Apr 01 14:10:45 33193 -42161 T -0.1337 1.0690 8.2S 110.0E 82 227 06m09s
01446 -01 -1391 Apr 11 21:43:28 32823 -41938 T -0.0681 1.0729 0.3S 7.1W 86 237 06m31s
01487 00 -1373 Apr 23 05:11:28 32455 -41715 T 0.0018 1.0762 7.7N 123.0W 90 247 06m47s
01529 01 -1355 May 03 12:36:48 32089 -41492 Tm 0.0743 1.0785 15.7N 122.0E 86 254 06m53s
01571 02 -1337 May 14 20:00:27 31726 -41269 T 0.1487 1.0801 23.5N 8.0E 81 261 06m51s
01614 03 -1319 May 25 03:23:45 31364 -41046 T 0.2236 1.0807 31.0N 105.3W 77 267 06m41s
01658 04 -1301 Jun 05 10:47:32 31004 -40823 T 0.2982 1.0805 38.1N 142.3E 72 272 06m25s
01702 05 -1283 Jun 15 18:14:09 30647 -40600 T 0.3708 1.0793 44.5N 30.6E 68 276 06m03s
01747 06 -1265 Jun 27 01:44:15 30291 -40377 T 0.4405 1.0773 49.9N 80.2W 64 279 05m39s
01793 07 -1247 Jul 07 09:18:23 29938 -40154 T 0.5071 1.0744 54.3N 169.8E 59 281 05m14s
01838 08 -1229 Jul 18 16:58:10 29587 -39931 T 0.5689 1.0709 57.1N 60.1E 55 281 04m49s
01883 09 -1211 Jul 29 00:44:16 29238 -39708 T 0.6254 1.0668 58.4N 50.4W 51 280 04m25s
01928 10 -1193 Aug 09 08:37:50 28890 -39485 T 0.6756 1.0623 58.2N 163.2W 47 276 04m02s
01973 11 -1175 Aug 19 16:37:58 28545 -39262 T 0.7202 1.0574 56.9N 80.9E 44 271 03m41s
02020 12 -1157 Aug 31 00:46:43 28202 -39039 T 0.7576 1.0524 54.8N 39.1W 40 263 03m23s
02066 13 -1139 Sep 10 09:03:02 27861 -38816 T 0.7886 1.0474 52.3N 162.9W 38 253 03m05s

02111	14	-1121	Sep 21	17:27:06	27522	-38593	T	0.8129	1.0426	49.7N	69.8E	35	240	02m50s
02156	15	-1103	Oct 02	01:58:07	27186	-38370	T	0.8312	1.0379	47.2N	60.6W	33	224	02m36s
02199	16	-1085	Oct 13	10:35:33	26851	-38147	T	0.8441	1.0338	44.7N	166.4E	32	208	02m24s
02242	17	-1067	Oct 23	19:18:36	26518	-37924	T	0.8522	1.0301	42.3N	31.2E	31	190	02m13s
02285	18	-1049	Nov 04	04:04:27	26188	-37701	T	0.8579	1.0269	40.3N	105.0W	31	174	02m04s
02329	19	-1031	Nov 14	12:54:08	25859	-37478	T	0.8602	1.0243	38.4N	117.5E	30	159	01m57s
02372	20	-1013	Nov 25	21:44:04	25533	-37255	T	0.8617	1.0222	37.0N	20.1W	30	147	01m51s
02414	21	-0995	Dec 06	06:33:58	25208	-37032	T	0.8634	1.0207	36.2N	157.7W	30	139	01m47s
02454	22	-0977	Dec 17	15:19:54	24886	-36809	T	0.8680	1.0195	36.3N	65.8E	29	134	01m43s
02495	23	-0959	Dec 28	00:03:08	24566	-36586	T	0.8746	1.0187	37.1N	70.1W	29	132	01m39s
02536	24	-0940	Jan 08	08:39:54	24248	-36363	T	0.8860	1.0181	39.2N	155.4E	27	134	01m36s
02576	25	-0922	Jan 18	17:10:02	23932	-36140	T	0.9024	1.0176	42.5N	22.1E	25	141	01m31s
02616	26	-0904	Jan 30	01:31:29	23617	-35917	T	0.9253	1.0169	47.4N	110.0W	22	154	01m23s
02656	27	-0886	Feb 09	09:44:46	23306	-35694	T	0.9546	1.0157	54.2N	117.8E	17	185	01m13s
02697	28	-0868	Feb 20	17:48:07	22996	-35471	T	0.9914	1.0129	65.7N	21.5W	6	407	00m53s
02738	29	-0850	Mar 03	01:41:53	22688	-35248	P	1.0352	0.9348	71.1N	164.8W	0		
02777	30	-0832	Mar 13	09:25:58	22382	-35025	P	1.0862	0.8403	71.5N	64.2E	0		
02818	31	-0814	Mar 24	17:01:29	22078	-34802	P	1.1434	0.7344	71.8N	65.0W	0		
02859	32	-0796	Apr 04	00:27:08	21777	-34579	P	1.2078	0.6151	71.7N	168.3E	0		
02900	33	-0778	Apr 15	07:46:06	21477	-34356	P	1.2767	0.4878	71.5N	43.4E	0		
02941	34	-0760	Apr 25	14:57:16	21180	-34133	P	1.3511	0.3506	71.0N	79.2W	0		
02983	35	-0742	May 06	22:04:25	20885	-33910	P	1.4275	0.2104	70.4N	159.7E	0		
03026	36	-0724	May 17	05:04:34	20591	-33687	Pe	1.5084	0.0628	69.5N	40.9E	0		

SAROS SERIES

27

Saros series 27 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
											GREATEST	°	km	
														ECLIPSE

00016	-38	-1993 Mar 09	19:48:09	46299	-49385	Pb	1.4907	0.0754	61.2N	11.4E	0		
00059	-37	-1975 Mar 20	03:32:45	45862	-49162	P	1.4354	0.1811	60.9N	115.5W	0		
00101	-36	-1957 Mar 31	11:10:33	45426	-48939	P	1.3744	0.2986	60.7N	119.5E	0		
00144	-35	-1939 Apr 10	18:42:36	44994	-48716	P	1.3086	0.4259	60.6N	4.1W	0		
00187	-34	-1921 Apr 22	02:10:29	44563	-48493	P	1.2395	0.5603	60.7N	126.7W	0		
00231	-33	-1903 May 02	09:35:23	44134	-48270	P	1.1681	0.6993	61.0N	111.5E	0		
00275	-32	-1885 May 13	16:58:46	43707	-48047	P	1.0951	0.8412	61.4N	10.0W	0		
00321	-31	-1867 May 24	00:20:47	43283	-47824	P	1.0213	0.9844	61.9N	131.3W	0		
00367	-30	-1849 Jun 04	07:44:24	42860	-47601	T	0.9488	1.0660	71.4N	148.2E	18	698	03m25s
00413	-29	-1831 Jun 14	15:09:59	42439	-47378	T	0.8784	1.0667	74.3N	64.4E	28	459	03m40s
00458	-28	-1813 Jun 25	22:38:32	42021	-47155	T	0.8105	1.0656	74.1N	23.1W	36	369	03m49s
00504	-27	-1795 Jul 06	06:11:22	41605	-46932	T	0.7465	1.0633	71.5N	117.7W	41	313	03m53s
00550	-26	-1777 Jul 17	13:49:57	41190	-46709	T	0.6876	1.0601	67.3N	139.2E	46	273	03m53s
00595	-25	-1759 Jul 27	21:35:14	40778	-46486	T	0.6349	1.0561	62.3N	29.0E	50	240	03m49s

00640	-24	-1741	Aug 08	05:26:17	40368	-46263	T	0.5875	1.0516	56.7N	86.0W	54	212	03m41s
00686	-23	-1723	Aug 18	13:25:56	39960	-46040	T	0.5480	1.0467	51.0N	154.6E	57	186	03m30s
00732	-22	-1705	Aug 29	21:32:37	39554	-45817	T	0.5150	1.0416	45.2N	32.0E	59	162	03m16s
00776	-21	-1687	Sep 09	05:47:51	39150	-45594	T	0.4896	1.0364	39.5N	93.5W	60	140	02m59s
00820	-20	-1669	Sep 20	14:08:41	38748	-45371	T	0.4697	1.0313	33.9N	138.9E	62	119	02m40s
00861	-19	-1651	Sep 30	22:37:42	38348	-45148	T	0.4574	1.0264	28.6N	9.0E	63	100	02m20s
00902	-18	-1633	Oct 12	07:11:21	37951	-44925	T	0.4495	1.0217	23.7N	122.2W	63	83	02m00s
00943	-17	-1615	Oct 22	15:50:19	37555	-44702	T	0.4467	1.0176	19.2N	105.2E	63	67	01m40s
00984	-16	-1597	Nov 03	00:31:48	37161	-44479	H	0.4466	1.0138	15.1N	28.1W	63	53	01m22s
01025	-15	-1579	Nov 13	09:16:15	36770	-44256	H	0.4492	1.0107	11.6N	162.0W	63	41	01m05s
01066	-14	-1561	Nov 24	17:59:42	36380	-44033	H	0.4519	1.0080	8.6N	64.4E	63	31	00m51s
01106	-13	-1543	Dec 05	02:41:32	35993	-43810	H	0.4537	1.0060	6.2N	68.7W	63	23	00m39s
01146	-12	-1525	Dec 16	11:19:44	35608	-43587	H	0.4531	1.0044	4.4N	159.2E	63	17	00m29s
01186	-11	-1507	Dec 26	19:53:46	35225	-43364	H	0.4493	1.0034	3.0N	28.1E	63	13	00m22s
01226	-10	-1488	Jan 07	04:19:45	34843	-43141	H	0.4395	1.0028	2.1N	100.8W	64	11	00m18s
01266	-09	-1470	Jan 17	12:38:40	34464	-42918	H	0.4246	1.0025	1.6N	132.2E	65	9	00m16s
01306	-08	-1452	Jan 28	20:47:42	34087	-42695	H	0.4021	1.0025	1.5N	7.8E	66	9	00m16s
01348	-07	-1434	Feb 08	04:48:24	33713	-42472	H	0.3736	1.0026	1.8N	114.4W	68	10	00m16s
01389	-06	-1416	Feb 19	12:36:46	33340	-42249	H	0.3355	1.0027	2.2N	126.8E	70	10	00m16s
01430	-05	-1398	Mar 01	20:16:49	32969	-42026	H	0.2913	1.0027	3.0N	10.3E	73	10	00m16s
01471	-04	-1380	Mar 12	03:44:58	32600	-41803	H	0.2381	1.0025	3.9N	103.1W	76	9	00m14s
01513	-03	-1362	Mar 23	11:05:00	32234	-41580	H	0.1792	1.0020	4.9N	145.9E	80	7	00m12s
01555	-02	-1344	Apr 02	18:14:26	31869	-41357	Hm	0.1122	1.0010	5.8N	37.7E	84	4	00m06s
01598	-01	-1326	Apr 14	01:17:31	31506	-41134	A	0.0409	0.9996	6.4N	68.7W	88	1	00m02s
01641	00	-1308	Apr 24	08:12:33	31146	-40911	A	-0.0361	0.9976	6.6N	172.9W	88	8	00m14s
01684	01	-1290	May 05	15:02:06	30788	-40688	A	-0.1168	0.9951	6.3N	84.3E	83	17	00m30s
01729	02	-1272	May 15	21:47:18	30431	-40465	A	-0.2000	0.9919	5.2N	17.5W	78	29	00m52s
01774	03	-1254	May 27	04:30:06	30077	-40242	A	-0.2840	0.9882	3.2N	118.8W	74	43	01m19s

01820 04 -1236 Jun 06 11:11:54 29725 -40019 A -0.3680 0.9838 0.4N 139.7E 68 61 01m54s
 01865 05 -1218 Jun 17 17:53:15 29375 -39796 A -0.4513 0.9790 3.5S 37.8E 63 83 02m34s
 01910 06 -1200 Jun 28 00:37:20 29027 -39573 A -0.5311 0.9736 8.1S 65.4W 58 111 03m19s
 01955 07 -1182 Jul 09 07:23:58 28681 -39350 A -0.6074 0.9678 13.7S 169.9W 53 146 04m04s
 02001 08 -1164 Jul 19 14:15:09 28337 -39127 A -0.6788 0.9617 19.9S 83.6E 47 189 04m46s
 02047 09 -1146 Jul 30 21:11:33 27996 -38904 A -0.7450 0.9554 26.8S 25.0W 42 244 05m22s
 02093 10 -1128 Aug 10 04:15:31 27656 -38681 A -0.8039 0.9490 34.1S 136.5W 36 314 05m49s
 02138 11 -1110 Aug 21 11:26:42 27318 -38458 A -0.8556 0.9425 41.7S 109.0E 31 409 06m07s
 02181 12 -1092 Aug 31 18:45:26 26983 -38235 A -0.9002 0.9361 49.5S 9.0W 25 544 06m17s
 02224 13 -1074 Sep 12 02:12:47 26649 -38012 A -0.9368 0.9299 57.2S 131.7W 20 754 06m19s
 02267 14 -1056 Sep 22 09:48:30 26318 -37789 A -0.9661 0.9240 64.5S 98.8E 14 1140 06m16s
 02310 15 -1038 Oct 03 17:31:41 25989 -37566 As -0.9885 0.9182 70.6S 43.4W 7 - 06m07s
 02355 16 -1020 Oct 14 01:21:23 25661 -37343 A- -1.0050 0.9429 71.7S 160.5E 0
 02397 17 -1002 Oct 25 09:16:56 25336 -37120 A- -1.0163 0.9227 71.3S 26.2E 0
 02438 18 -0984 Nov 04 17:17:19 25013 -36897 A- -1.0234 0.9099 70.7S 108.8W 0
 02479 19 -0966 Nov 16 01:19:18 24692 -36674 P -1.0288 0.9002 69.9S 116.4E 0
 02520 20 -0948 Nov 26 09:23:16 24373 -36451 P -1.0323 0.8940 68.9S 18.3W 0
 02561 21 -0930 Dec 07 17:25:13 24056 -36228 P -1.0375 0.8855 67.8S 151.7W 0
 02601 22 -0912 Dec 18 01:25:26 23741 -36005 P -1.0434 0.8758 66.7S 75.9E 0
 02640 23 -0894 Dec 29 09:19:00 23428 -35782 P -1.0548 0.8575 65.6S 54.3W 0
 02681 24 -0875 Jan 08 17:08:29 23118 -35559 P -1.0690 0.8345 64.6S 177.0E 0
 02722 25 -0857 Jan 20 00:49:06 22809 -35336 P -1.0907 0.7993 63.6S 50.9E 0
 02762 26 -0839 Jan 30 08:22:00 22503 -35113 P -1.1181 0.7545 62.7S 72.9W 0
 02802 27 -0821 Feb 10 15:44:20 22198 -34890 P -1.1538 0.6955 62.0S 166.2E 0
 02843 28 -0803 Feb 20 22:58:47 21896 -34667 P -1.1957 0.6259 61.4S 47.4E 0
 02884 29 -0785 Mar 04 06:03:10 21595 -34444 P -1.2457 0.5420 61.0S 68.8W 0
 02925 30 -0767 Mar 14 12:58:32 21297 -34221 P -1.3028 0.4454 60.8S 177.5E 0
 02966 31 -0749 Mar 25 19:45:38 21001 -33998 P -1.3664 0.3371 60.6S 65.8E 0

03008 32 -0731 Apr 05 02:25:46 20707 -33775 P -1.4353 0.2191 60.7S 44.2W 0

03052 33 -0713 Apr 16 08:59:26 20415 -33552 Pe -1.5091 0.0917 60.9S 152.5W 0

SAROS SERIES

28

Saros series 28 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
00213	-34	-1910 Mar 22	03:40:50	44303	-48358	Pb	-1.5388	0.0265	71.2S	61.6E	0		
00257	-33	-1892 Apr 01	10:34:53	43875	-48135	P	-1.4763	0.1369	71.5S	57.4W	0		
00302	-32	-1874 Apr 12	17:19:20	43450	-47912	P	-1.4066	0.2599	71.5S	174.2W	0		
00349	-31	-1856 Apr 22	23:58:22	43026	-47689	P	-1.3330	0.3895	71.3S	70.4E	0		
00395	-30	-1838 May 04	06:31:11	42605	-47466	P	-1.2547	0.5269	70.9S	43.1W	0		
00440	-29	-1820 May 14	13:01:43	42186	-47243	P	-1.1748	0.6667	70.3S	155.6W	0		
00486	-28	-1802 May 25	19:29:58	41769	-47020	P	-1.0933	0.8083	69.5S	93.0E	0		
00533	-27	-1784 Jun 05	01:57:48	41354	-46797	A-	-1.0116	0.9493	68.6S	17.8W	0		

00578 -26 -1766 Jun 16 08:27:00 40941 -46574 A -0.9312 0.9509 46.9S 133.4W 21 499 05m03s
00623 -25 -1748 Jun 26 14:59:14 40530 -46351 A -0.8533 0.9496 35.5S 121.5E 31 356 05m50s
00668 -24 -1730 Jul 07 21:35:47 40121 -46128 A -0.7792 0.9472 27.3S 17.4E 39 310 06m33s
00715 -23 -1712 Jul 18 04:17:46 39714 -45905 A -0.7099 0.9441 21.2S 87.0W 45 291 07m11s
00759 -22 -1694 Jul 29 11:07:04 39309 -45682 A -0.6466 0.9407 16.9S 167.5E 50 285 07m41s
00803 -21 -1676 Aug 08 18:04:23 38906 -45459 A -0.5900 0.9371 14.1S 60.5E 54 286 08m04s
00844 -20 -1658 Aug 20 01:09:31 38506 -45236 A -0.5401 0.9334 12.8S 48.1W 57 291 08m21s
00885 -19 -1640 Aug 30 08:24:11 38107 -45013 A -0.4982 0.9298 12.9S 159.0W 60 299 08m34s
00926 -18 -1622 Sep 10 15:47:27 37711 -44790 A -0.4637 0.9263 14.1S 88.0E 62 308 08m44s
00967 -17 -1604 Sep 20 23:20:23 37317 -44567 A -0.4370 0.9232 16.3S 27.4W 64 318 08m52s
01009 -16 -1586 Oct 02 06:59:43 36924 -44344 A -0.4154 0.9204 19.3S 144.4W 65 327 08m59s
01050 -15 -1568 Oct 12 14:47:54 36534 -44121 A -0.4012 0.9181 22.9S 96.4E 66 335 09m05s
01091 -14 -1550 Oct 23 22:41:00 36146 -43898 A -0.3911 0.9164 26.9S 23.8W 67 342 09m09s
01131 -13 -1532 Nov 03 06:39:37 35760 -43675 A -0.3854 0.9154 31.1S 145.0W 67 346 09m11s
01170 -12 -1514 Nov 14 14:39:37 35376 -43452 A -0.3807 0.9151 35.1S 94.0E 67 348 09m12s
01210 -11 -1496 Nov 24 22:41:35 34994 -43229 A -0.3774 0.9154 38.8S 26.8W 68 346 09m09s
01250 -10 -1478 Dec 06 06:41:47 34614 -43006 A -0.3725 0.9165 41.8S 146.1W 68 341 09m04s
01290 -09 -1460 Dec 16 14:39:12 34236 -42783 A -0.3653 0.9183 43.7S 96.1E 68 333 08m56s
01331 -08 -1442 Dec 27 22:31:42 33860 -42560 A -0.3539 0.9207 44.4S 19.9W 69 321 08m46s
01372 -07 -1423 Jan 07 06:18:43 33487 -42337 A -0.3381 0.9238 43.7S 134.4W 70 306 08m33s
01414 -06 -1405 Jan 18 13:57:34 33115 -42114 A -0.3152 0.9274 41.4S 112.6E 71 288 08m17s
01455 -05 -1387 Jan 28 21:28:28 32746 -41891 A -0.2853 0.9315 37.8S 0.7E 73 268 07m59s
01497 -04 -1369 Feb 09 04:50:40 32378 -41668 A -0.2481 0.9359 32.9S 110.2W 75 246 07m38s
01539 -03 -1351 Feb 19 12:05:04 32013 -41445 A -0.2042 0.9406 27.1S 139.8E 78 225 07m12s
01581 -02 -1333 Mar 02 19:09:14 31649 -41222 A -0.1513 0.9454 20.3S 31.4E 81 203 06m43s
01624 -01 -1315 Mar 13 02:06:52 31288 -40999 A -0.0924 0.9502 13.0S 76.1W 85 183 06m11s
01668 00 -1297 Mar 24 08:56:20 30929 -40776 A -0.0260 0.9550 5.1S 178.0E 88 164 05m35s
01712 01 -1279 Apr 03 15:41:31 30572 -40553 A 0.0446 0.9596 3.0N 72.8E 87 147 04m58s

01756	02	-1261	Apr 14	22:19:22	30217	-40330	Am	0.1220	0.9638	11.5N	30.6W	83	132	04m21s
01802	03	-1243	Apr 25	04:56:05	29864	-40107	A	0.2012	0.9677	20.1N	133.7W	78	119	03m45s
01847	04	-1225	May 06	11:29:17	29513	-39884	A	0.2843	0.9711	28.7N	124.5E	73	108	03m12s
01892	05	-1207	May 16	18:03:07	29164	-39661	A	0.3675	0.9740	37.2N	23.1E	68	100	02m42s
01937	06	-1189	May 28	00:37:05	28817	-39438	A	0.4515	0.9763	45.6N	77.4W	63	95	02m18s
01983	07	-1171	Jun 07	07:14:58	28473	-39215	A	0.5331	0.9782	53.5N	177.2W	58	92	01m58s
02030	08	-1153	Jun 18	13:56:56	28130	-38992	A	0.6121	0.9793	60.9N	84.5E	52	94	01m44s
02076	09	-1135	Jun 28	20:43:51	27790	-38769	A	0.6878	0.9799	67.3N	10.7W	46	99	01m34s
02121	10	-1117	Jul 10	03:38:09	27451	-38546	A	0.7583	0.9799	72.1N	101.1W	40	110	01m28s
02165	11	-1099	Jul 20	10:40:21	27115	-38323	A	0.8232	0.9795	74.3N	173.6E	34	129	01m25s
02208	12	-1081	Jul 31	17:52:04	26781	-38100	A	0.8810	0.9785	73.5N	86.9E	28	163	01m25s
02251	13	-1063	Aug 11	01:12:43	26448	-37877	A	0.9323	0.9770	70.8N	6.5W	21	230	01m27s
02294	14	-1045	Aug 22	08:44:56	26118	-37654	A	0.9753	0.9748	66.9N	105.6W	12	427	01m31s
02338	15	-1027	Sep 01	16:27:11	25790	-37431	P	1.0111	0.9614	61.3N	154.1E	0		
02380	16	-1009	Sep 13	00:19:59	25464	-37208	P	1.0391	0.9117	60.9N	25.8E	0		
02422	17	-0991	Sep 23	08:22:26	25140	-36985	P	1.0604	0.8739	60.7N	104.9W	0		
02463	18	-0973	Oct 04	16:35:00	24818	-36762	P	1.0741	0.8496	60.7N	122.0E	0		
02504	19	-0955	Oct 15	00:55:20	24499	-36539	P	1.0828	0.8345	60.8N	13.1W	0		
02545	20	-0937	Oct 26	09:22:23	24181	-36316	P	1.0869	0.8276	61.1N	149.9W	0		
02585	21	-0919	Nov 05	17:54:59	23865	-36093	P	1.0872	0.8275	61.5N	71.9E	0		
02625	22	-0901	Nov 17	02:32:05	23552	-35870	P	1.0844	0.8332	62.1N	67.7W	0		
02665	23	-0883	Nov 27	11:10:12	23240	-35647	P	1.0817	0.8389	62.8N	152.4E	0		
02706	24	-0865	Dec 08	19:49:05	22931	-35424	P	1.0789	0.8450	63.7N	12.0E	0		
02746	25	-0847	Dec 19	04:25:32	22623	-35201	P	1.0788	0.8465	64.7N	128.1W	0		
02786	26	-0829	Dec 30	13:00:21	22318	-34978	P	1.0807	0.8445	65.7N	91.8E	0		
02827	27	-0810	Jan 09	21:28:45	22015	-34755	P	1.0882	0.8324	66.8N	47.1W	0		
02868	28	-0792	Jan 21	05:53:25	21714	-34532	P	1.0995	0.8133	67.8N	174.4E	0		
02909	29	-0774	Jan 31	14:09:54	21415	-34309	P	1.1180	0.7809	68.8N	37.3E	0		

02950 30 -0756 Feb 11 22:20:51 21118 -34086 P 1.1418 0.7382 69.7N 98.9W 0
02992 31 -0738 Feb 22 06:22:32 20823 -33863 P 1.1738 0.6798 70.5N 126.6E 0
03036 32 -0720 Mar 04 14:18:58 20530 -33640 P 1.2107 0.6114 71.1N 7.1W 0
03080 33 -0702 Mar 15 22:07:08 20239 -33417 P 1.2550 0.5285 71.5N 139.1W 0
03124 34 -0684 Mar 26 05:49:17 19950 -33194 P 1.3047 0.4341 71.6N 90.2E 0
03169 35 -0666 Apr 06 13:24:57 19664 -32971 P 1.3604 0.3276 71.5N 38.8W 0
03214 36 -0648 Apr 16 20:56:38 19379 -32748 P 1.4199 0.2128 71.2N 166.6W 0
03259 37 -0630 Apr 28 04:23:58 19097 -32525 Pe 1.4832 0.0901 70.7N 67.0E 0

SAROS SERIES

29

Saros series 29 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

00285 -36 -1881 Mar 01 09:41:45 43618 -48000 Pb 1.5127 0.0793 61.4N 157.8E 0
00331 -35 -1863 Mar 11 16:45:13 43193 -47777 P 1.4511 0.1845 61.0N 41.3E 0

00377	-34	-1845	Mar 22	23:43:44	42771	-47554	P	1.3838	0.3009	60.7N	73.8W	0
00423	-33	-1827	Apr 02	06:34:52	42351	-47331	P	1.3094	0.4314	60.5N	172.9E	0
00468	-32	-1809	Apr 13	13:24:19	41933	-47108	P	1.2320	0.5684	60.5N	60.1E	0
00515	-31	-1791	Apr 23	20:09:41	41517	-46885	P	1.1501	0.7149	60.7N	51.7W	0
00560	-30	-1773	May 05	02:55:56	41103	-46662	P	1.0674	0.8642	61.0N	163.7W	0
00605	-29	-1755	May 15	09:40:36	40692	-46439	A	0.9819	0.9858	65.4N	105.4E	10 284 00m51s
00650	-28	-1737	May 26	16:29:39	40282	-46216	A	0.8985	0.9933	68.0N	33.4E	26 54 00m26s
00696	-27	-1719	Jun 05	23:20:36	39874	-45993	A	0.8156	0.9985	67.9N	50.6W	35 9 00m06s
00742	-26	-1701	Jun 17	06:16:54	39469	-45770	H	0.7360	1.0025	66.4N	140.2W	42 13 00m11s
00786	-25	-1683	Jun 27	13:18:34	39065	-45547	H	0.6596	1.0056	63.7N	125.6E	48 26 00m25s
00828	-24	-1665	Jul 08	20:28:30	38664	-45324	H	0.5893	1.0079	60.0N	25.9E	54 34 00m37s
00869	-23	-1647	Jul 19	03:46:15	38264	-45101	H	0.5243	1.0096	55.3N	78.7W	58 39 00m47s
00910	-22	-1629	Jul 30	11:12:58	37867	-44878	H	0.4660	1.0108	50.2N	172.1E	62 42 00m55s
00951	-21	-1611	Aug 09	18:49:44	37472	-44655	H	0.4152	1.0115	44.7N	58.6E	65 44 01m01s
00992	-20	-1593	Aug 21	02:36:50	37079	-44432	H	0.3723	1.0120	39.0N	58.7W	68 44 01m05s
01034	-19	-1575	Aug 31	10:33:31	36688	-44209	H	0.3364	1.0123	33.2N	179.3W	70 45 01m08s
01075	-18	-1557	Sep 11	18:40:22	36299	-43986	H	0.3083	1.0124	27.5N	57.0E	72 45 01m10s
01115	-17	-1539	Sep 22	02:56:41	35912	-43763	H	0.2873	1.0127	21.9N	69.4W	73 45 01m13s
01155	-16	-1521	Oct 03	11:22:04	35527	-43540	H	0.2732	1.0131	16.6N	161.7E	74 47 01m16s
01195	-15	-1503	Oct 13	19:53:42	35144	-43317	H	0.2637	1.0138	11.6N	31.2E	75 49 01m22s
01235	-14	-1485	Oct 25	04:32:54	34763	-43094	H	0.2597	1.0149	7.0N	101.0W	75 53 01m29s
01275	-13	-1467	Nov 04	13:16:02	34385	-42871	H2	0.2581	1.0164	2.9N	125.8E	75 58 01m39s
01315	-12	-1449	Nov 15	22:02:29	34008	-42648	T	0.2591	1.0185	0.8S	8.0W	75 65 01m53s
01356	-11	-1431	Nov 26	06:48:35	33634	-42425	T	0.2592	1.0210	3.9S	141.5W	75 74 02m09s
01397	-10	-1413	Dec 07	15:35:10	33261	-42202	T	0.2593	1.0242	6.3S	85.1E	75 85 02m29s
01438	-09	-1395	Dec 18	00:18:52	32891	-41979	T	0.2562	1.0278	8.2S	47.5W	75 97 02m50s
01480	-08	-1377	Dec 29	08:58:42	32523	-41756	T	0.2495	1.0320	9.4S	178.9W	76 112 03m13s
01522	-07	-1358	Jan 08	17:33:00	32157	-41533	T	0.2376	1.0365	10.1S	51.1E	76 126 03m36s

01564 -06 -1340 Jan 20 02:01:16 31792 -41310 T 0.2203 1.0414 10.3S 77.2W 77 142 03m58s
 01607 -05 -1322 Jan 30 10:22:25 31430 -41087 T 0.1965 1.0465 10.0S 156.3E 79 158 04m19s
 01651 -04 -1304 Feb 10 18:35:48 31070 -40864 T 0.1657 1.0518 9.2S 31.8E 81 174 04m38s
 01694 -03 -1286 Feb 21 02:41:58 30712 -40641 T 0.1281 1.0569 8.2S 90.8W 83 189 04m56s
 01739 -02 -1268 Mar 03 10:40:37 30357 -40418 T 0.0837 1.0619 6.9S 148.5E 85 204 05m13s
 01784 -01 -1250 Mar 14 18:31:41 30003 -40195 T 0.0324 1.0665 5.5S 29.8E 88 217 05m29s
 01829 00 -1232 Mar 25 02:16:17 29651 -39972 Tm -0.0247 1.0707 4.2S 87.3W 89 230 05m45s
 01874 01 -1214 Apr 05 09:54:42 29302 -39749 T -0.0874 1.0743 3.0S 157.3E 85 242 06m00s
 01919 02 -1196 Apr 15 17:28:48 28954 -39526 T -0.1542 1.0772 2.2S 43.0E 81 252 06m16s
 01964 03 -1178 Apr 27 00:57:21 28609 -39303 T -0.2259 1.0793 2.0S 69.9W 77 262 06m31s
 02011 04 -1160 May 07 08:24:20 28265 -39080 T -0.2990 1.0806 2.4S 177.5E 73 271 06m45s
 02057 05 -1142 May 18 15:48:36 27924 -38857 T -0.3742 1.0809 3.7S 65.4E 68 280 06m56s
 02103 06 -1124 May 28 23:13:30 27585 -38634 T -0.4490 1.0804 5.8S 47.1W 63 288 07m03s
 02148 07 -1106 Jun 09 06:37:50 27247 -38411 T -0.5241 1.0788 8.9S 159.9W 58 297 07m04s
 02191 08 -1088 Jun 19 14:05:30 26912 -38188 T -0.5964 1.0763 12.9S 85.9E 53 307 06m56s
 02234 09 -1070 Jun 30 21:35:38 26579 -37965 T -0.6661 1.0729 17.8S 29.6W 48 317 06m37s
 02277 10 -1052 Jul 11 05:10:06 26248 -37742 T -0.7320 1.0689 23.6S 146.9W 43 330 06m09s
 02320 11 -1034 Jul 22 12:49:59 25919 -37519 T -0.7932 1.0639 30.1S 93.5E 37 344 05m32s
 02363 12 -1016 Aug 01 20:36:28 25593 -37296 T -0.8486 1.0584 37.3S 28.8W 32 364 04m49s
 02405 13 -0998 Aug 13 04:30:26 25268 -37073 T -0.8975 1.0524 45.0S 154.4W 26 394 04m04s
 02446 14 -0980 Aug 23 12:30:59 24945 -36850 T -0.9406 1.0458 53.4S 75.9E 19 455 03m18s
 02487 15 -0962 Sep 03 20:40:19 24624 -36627 T -0.9762 1.0387 62.4S 61.4W 12 627 02m33s
 02528 16 -0944 Sep 14 04:56:40 24306 -36404 P -1.0056 0.9987 71.4S 138.9E 0
 02569 17 -0926 Sep 25 13:21:07 23989 -36181 P -1.0283 0.9539 71.7S 2.6W 0
 02609 18 -0908 Oct 05 21:51:28 23675 -35958 P -1.0457 0.9194 71.8S 145.8W 0
 02649 19 -0890 Oct 17 06:28:56 23363 -35735 P -1.0571 0.8966 71.5S 69.4E 0
 02690 20 -0872 Oct 27 15:10:23 23052 -35512 P -1.0647 0.8809 71.1S 76.2W 0
 02731 21 -0854 Nov 07 23:55:36 22744 -35289 P -1.0690 0.8718 70.4S 137.9E 0

02770 22 -0836 Nov 18 08:42:37 22438 -35066 P -1.0716 0.8661 69.5S 7.9W 0
 02811 23 -0818 Nov 29 17:30:50 22134 -34843 P -1.0730 0.8627 68.5S 153.4W 0
 02852 24 -0800 Dec 10 02:16:34 21832 -34620 P -1.0761 0.8565 67.4S 62.5E 0
 02893 25 -0782 Dec 21 10:59:39 21532 -34397 P -1.0810 0.8473 66.3S 80.4W 0
 02934 26 -0764 Dec 31 19:37:35 21234 -34174 P -1.0898 0.8308 65.3S 138.5E 0
 02976 27 -0745 Jan 12 04:10:49 20939 -33951 P -1.1024 0.8077 64.3S 1.0W 0
 03018 28 -0727 Jan 22 12:34:44 20645 -33728 P -1.1222 0.7714 63.3S 137.8W 0
 03062 29 -0709 Feb 02 20:51:57 20353 -33505 P -1.1471 0.7260 62.5S 87.4E 0
 03106 30 -0691 Feb 13 04:58:26 20064 -33282 P -1.1803 0.6652 61.9S 44.5W 0
 03151 31 -0673 Feb 24 12:57:12 19776 -33059 P -1.2192 0.5940 61.3S 174.3W 0
 03196 32 -0655 Mar 06 20:43:54 19491 -32836 P -1.2674 0.5057 61.0S 59.0E 0
 03241 33 -0637 Mar 18 04:23:10 19208 -32613 P -1.3210 0.4076 60.7S 65.7W 0
 03287 34 -0619 Mar 28 11:51:15 18927 -32390 P -1.3825 0.2950 60.7S 172.4E 0
 03334 35 -0601 Apr 08 19:12:05 18647 -32167 P -1.4489 0.1737 60.8S 52.3E 0
 03381 36 -0583 Apr 19 02:23:20 18370 -31944 Pe -1.5219 0.0408 61.0S 65.4W 0

SAROS SERIES

30

Saros series 30 contains 83 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
											GREATEST	°	km	
														ECLIPSE

-----	-48	-2051	Oct 12	16:21:00	47704	-50095	Pb	-1.5294	0.0182	60.6S	41.0E	0	
-----	-47	-2033	Oct 24	01:07:25	47260	-49872	P	-1.5236	0.0288	60.7S	101.1W	0	
-----	-46	-2015	Nov 03	09:57:44	46819	-49649	P	-1.5207	0.0339	61.0S	115.7E	0	
00008	-45	-1997	Nov 14	18:48:49	46379	-49426	P	-1.5183	0.0377	61.5S	27.7W	0	
00051	-44	-1979	Nov 25	03:41:17	45942	-49203	P	-1.5170	0.0392	62.1S	171.7W	0	
00093	-43	-1961	Dec 06	12:31:33	45506	-48980	P	-1.5144	0.0428	62.9S	44.7E	0	
00136	-42	-1943	Dec 16	21:18:48	45073	-48757	P	-1.5092	0.0512	63.7S	98.4W	0	
00179	-41	-1925	Dec 28	06:00:28	44642	-48534	P	-1.4998	0.0675	64.7S	119.6E	0	
00223	-40	-1906	Jan 07	14:37:00	44213	-48311	P	-1.4864	0.0912	65.7S	21.5W	0	
00267	-39	-1888	Jan 18	23:06:19	43785	-48088	P	-1.4674	0.1258	66.7S	161.3W	0	
00312	-38	-1870	Jan 29	07:27:56	43360	-47865	P	-1.4425	0.1718	67.8S	60.4E	0	
00359	-37	-1852	Feb 09	15:41:30	42937	-47642	P	-1.4111	0.2304	68.7S	76.4W	0	
00405	-36	-1834	Feb 19	23:47:18	42517	-47419	P	-1.3735	0.3016	69.6S	148.2E	0	
00450	-35	-1816	Mar 02	07:44:54	42098	-47196	P	-1.3292	0.3861	70.4S	14.3E	0	
00496	-34	-1798	Mar 13	15:34:58	41681	-46973	P	-1.2789	0.4828	71.0S	118.3W	0	
00543	-33	-1780	Mar 23	23:18:05	41266	-46750	P	-1.2229	0.5913	71.4S	110.5E	0	
00588	-32	-1762	Apr 04	06:55:36	40854	-46527	P	-1.1623	0.7087	71.6S	19.5W	0	
00633	-31	-1744	Apr 14	14:26:42	40443	-46304	P	-1.0965	0.8368	71.5S	147.9W	0	
00679	-30	-1726	Apr 25	21:54:40	40035	-46081	P	-1.0281	0.9698	71.2S	84.6E	0	
00725	-29	-1708	May 06	05:18:38	39628	-45858	T	-0.9564	1.0657	58.2S	66.9W	16	750 04m22s
00769	-28	-1690	May 17	12:42:18	39224	-45635	T	-0.8849	1.0681	45.7S	167.5E	27	477 05m07s
00813	-27	-1672	May 27	20:03:02	38822	-45412	T	-0.8111	1.0687	35.5S	48.6E	36	382 05m39s

00853 -26 -1654 Jun 08 03:26:19 38422 -45189 T -0.7398 1.0678 26.9S 68.6W 42 329 05m58s
00894 -25 -1636 Jun 18 10:49:52 38024 -44966 T -0.6688 1.0659 19.5S 175.4E 48 290 06m06s
00935 -24 -1618 Jun 29 18:17:57 37628 -44743 T -0.6021 1.0630 13.5S 59.3E 53 259 06m01s
00976 -23 -1600 Jul 10 01:48:41 37234 -44520 T -0.5381 1.0593 8.6S 56.7W 57 231 05m44s
01017 -22 -1582 Jul 21 09:26:34 36842 -44297 T -0.4804 1.0550 5.0S 173.9W 61 206 05m19s
01058 -21 -1564 Jul 31 17:09:48 36452 -44074 T -0.4277 1.0500 2.7S 68.1E 65 183 04m48s
01099 -20 -1546 Aug 12 01:00:17 36064 -43851 T -0.3814 1.0447 1.7S 51.5W 68 160 04m13s
01139 -19 -1528 Aug 22 08:57:37 35679 -43628 T -0.3414 1.0390 1.8S 172.6W 70 139 03m37s
01179 -18 -1510 Sep 02 17:03:29 35295 -43405 T -0.3092 1.0334 3.2S 64.1E 72 118 03m02s
01219 -17 -1492 Sep 13 01:16:24 34913 -43182 T -0.2831 1.0277 5.4S 61.0W 74 97 02m29s
01259 -16 -1474 Sep 24 09:36:28 34534 -42959 T -0.2638 1.0222 8.5S 171.9E 75 78 01m58s
01299 -15 -1456 Oct 04 18:02:52 34157 -42736 H3 -0.2502 1.0169 12.2S 43.3E 75 60 01m30s
01340 -14 -1438 Oct 16 02:35:27 33781 -42513 H -0.2425 1.0121 16.3S 86.9W 76 43 01m04s
01381 -13 -1420 Oct 26 11:11:24 33408 -42290 H -0.2384 1.0077 20.6S 142.3E 76 27 00m41s
01422 -12 -1402 Nov 06 19:50:47 33037 -42067 H -0.2378 1.0039 24.9S 10.9E 76 14 00m21s
01463 -11 -1384 Nov 17 04:30:43 32668 -41844 H -0.2385 1.0006 28.9S 120.1W 76 2 00m03s
01505 -10 -1366 Nov 28 13:10:48 32301 -41621 A -0.2400 0.9979 32.4S 109.5E 76 7 00m11s
01547 -09 -1348 Dec 08 21:47:05 31936 -41398 A -0.2392 0.9958 35.1S 19.3W 76 15 00m24s
01590 -08 -1330 Dec 20 06:20:46 31573 -41175 A -0.2369 0.9942 36.8S 146.8W 76 21 00m33s
01633 -07 -1312 Dec 30 14:48:09 31212 -40952 Am -0.2307 0.9931 37.3S 87.6E 76 25 00m40s
01677 -06 -1293 Jan 10 23:08:36 30853 -40729 A -0.2190 0.9924 36.4S 36.3W 77 27 00m45s
01722 -05 -1275 Jan 21 07:20:02 30497 -40506 A -0.2007 0.9920 34.0S 158.4W 78 29 00m48s
01766 -04 -1257 Feb 01 15:23:05 30142 -40283 A -0.1763 0.9919 30.4S 80.8E 80 29 00m50s
01812 -03 -1239 Feb 11 23:16:10 29790 -40060 A -0.1445 0.9918 25.7S 38.3W 82 29 00m52s
01857 -02 -1221 Feb 23 06:58:23 29439 -39837 A -0.1046 0.9918 20.0S 155.7W 84 29 00m53s
01901 -01 -1203 Mar 05 14:30:37 29091 -39614 A -0.0573 0.9916 13.5S 88.7E 87 30 00m55s
01946 00 -1185 Mar 16 21:52:39 28745 -39391 A -0.0023 0.9912 6.4S 25.0W 90 31 00m59s
01992 01 -1167 Mar 27 05:04:59 28400 -39168 A 0.0597 0.9904 1.3N 136.6W 87 34 01m04s

02038	02	-1149	Apr 07	12:07:46	28058	-38945	A	0.1285	0.9893	9.4N	113.8E	83	38	01m11s
02084	03	-1131	Apr 17	19:03:13	27718	-38722	A	0.2024	0.9877	17.7N	6.1E	78	44	01m21s
02130	04	-1113	Apr 29	01:51:42	27380	-38499	A	0.2810	0.9855	26.2N	99.7W	74	53	01m33s
02174	05	-1095	May 09	08:34:13	27044	-38276	A	0.3635	0.9828	34.9N	156.4E	68	66	01m46s
02217	06	-1077	May 20	15:13:09	26710	-38053	A	0.4478	0.9794	43.5N	54.1E	63	82	02m00s
02260	07	-1059	May 30	21:49:35	26379	-37830	A	0.5334	0.9755	52.1N	46.4W	58	104	02m15s
02303	08	-1041	Jun 11	04:25:52	26049	-37607	A	0.6179	0.9710	60.3N	144.6W	52	133	02m30s
02347	09	-1023	Jun 21	11:01:21	25721	-37384	A	0.7020	0.9658	68.2N	121.4E	45	174	02m45s
02389	10	-1005	Jul 02	17:40:29	25396	-37161	A	0.7822	0.9602	74.9N	35.5E	38	234	03m00s
02430	11	-0987	Jul 13	00:22:34	25072	-36938	A	0.8592	0.9539	78.8N	32.3W	30	332	03m15s
02471	12	-0969	Jul 24	07:10:20	24751	-36715	A	0.9306	0.9470	76.7N	91.5W	21	543	03m30s
02512	13	-0951	Aug 03	14:03:44	24431	-36492	An	0.9965	0.9374	64.7N	155.6W	2	-	03m41s
02553	14	-0933	Aug 14	21:05:20	24114	-36269	P	1.0550	0.8678	62.1N	91.8E	0		
02593	15	-0915	Aug 25	04:14:54	23799	-36046	P	1.1062	0.7790	61.5N	25.9W	0		
02633	16	-0897	Sep 05	11:31:46	23486	-35823	P	1.1510	0.7020	61.0N	145.2W	0		
02674	17	-0879	Sep 15	18:57:47	23175	-35600	P	1.1875	0.6397	60.7N	93.3E	0		
02715	18	-0861	Sep 27	02:31:47	22866	-35377	P	1.2168	0.5900	60.6N	30.1W	0		
02755	19	-0843	Oct 07	10:14:11	22559	-35154	P	1.2390	0.5526	60.6N	155.6W	0		
02795	20	-0825	Oct 18	18:01:53	22254	-34931	P	1.2565	0.5234	60.7N	77.6E	0		
02836	21	-0807	Oct 29	01:56:39	21951	-34708	P	1.2678	0.5046	61.1N	51.0W	0		
02877	22	-0789	Nov 09	09:54:51	21650	-34485	P	1.2760	0.4910	61.6N	179.4E	0		
02918	23	-0771	Nov 19	17:56:10	21352	-34262	P	1.2813	0.4822	62.3N	48.9E	0		
02959	24	-0753	Dec 01	01:57:14	21055	-34039	P	1.2865	0.4736	63.1N	81.8W	0		
03001	25	-0735	Dec 11	09:58:17	20761	-33816	P	1.2915	0.4652	64.0N	147.3E	0		
03045	26	-0717	Dec 22	17:55:38	20468	-33593	P	1.2993	0.4521	65.0N	16.9E	0		
03089	27	-0698	Jan 02	01:48:43	20178	-33370	P	1.3105	0.4335	66.1N	112.8W	0		
03134	28	-0680	Jan 13	09:35:22	19890	-33147	P	1.3265	0.4066	67.2N	118.7E	0		
03179	29	-0662	Jan 23	17:15:52	19603	-32924	P	1.3470	0.3720	68.2N	8.9W	0		

03224 30 -0644 Feb 04 00:46:17 19319 -32701 P 1.3757 0.3236 69.2N 134.5W 0
03269 31 -0626 Feb 14 08:09:05 19037 -32478 P 1.4103 0.2648 70.1N 101.1E 0
03315 32 -0608 Feb 25 15:21:51 18757 -32255 P 1.4526 0.1925 70.8N 21.3W 0
03362 33 -0590 Mar 07 22:27:30 18479 -32032 P 1.5004 0.1103 71.4N 142.4W 0
03410 34 -0572 Mar 18 05:22:04 18203 -31809 Pe 1.5567 0.0129 71.7N 98.9E 0

SAROS SERIES

31

Saros series 31 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

00478 -35 -1805 Jan 31 08:30:57 41845 -47061 Pb 1.5526 0.0081 63.3N 167.9W 0
00525 -34 -1787 Feb 10 16:07:23 41430 -46838 P 1.5213 0.0626 62.5N 66.9E 0
00570 -33 -1769 Feb 21 23:32:24 41016 -46615 P 1.4816 0.1318 61.8N 55.2W 0
00615 -32 -1751 Mar 04 06:47:43 40605 -46392 P 1.4347 0.2136 61.3N 174.7W 0
00660 -31 -1733 Mar 15 13:52:14 40196 -46169 P 1.3796 0.3097 60.9N 68.6E 0

00707 -30 -1715 Mar 25 20:46:57 39789 -45946 P 1.3171 0.4188 60.7N 45.6W 0

00751 -29 -1697 Apr 06 03:33:07 39383 -45723 P 1.2482 0.5389 60.6N 157.5W 0

00795 -28 -1679 Apr 16 10:11:56 38980 -45500 P 1.1740 0.6681 60.6N 92.4E 0

00837 -27 -1661 Apr 27 16:44:02 38579 -45277 P 1.0949 0.8056 60.8N 16.0W 0

00878 -26 -1643 May 07 23:11:49 38180 -45054 P 1.0124 0.9483 61.2N 123.4W 0

00919 -25 -1625 May 19 05:36:22 37784 -44831 A 0.9278 0.9523 66.7N 179.3E 21 469 03m19s

00960 -24 -1607 May 29 12:00:07 37389 -44608 A 0.8427 0.9525 66.9N 103.4E 32 322 03m32s

01001 -23 -1589 Jun 09 18:22:35 36996 -44385 A 0.7568 0.9516 65.7N 23.0E 41 271 03m51s

01042 -22 -1571 Jun 20 00:48:42 36606 -44162 A 0.6743 0.9499 63.3N 61.8W 47 249 04m15s

01083 -21 -1553 Jul 01 07:17:10 36217 -43939 A 0.5941 0.9476 59.7N 150.2W 53 240 04m44s

01123 -20 -1535 Jul 11 13:52:31 35831 -43716 A 0.5194 0.9449 55.3N 116.6E 58 238 05m19s

01163 -19 -1517 Jul 22 20:32:30 35446 -43493 A 0.4487 0.9418 50.0N 19.7E 63 241 05m59s

01203 -18 -1499 Aug 02 03:22:20 35064 -43270 A 0.3864 0.9386 44.4N 81.5W 67 248 06m42s

01243 -17 -1481 Aug 13 10:18:57 34683 -43047 A 0.3298 0.9351 38.4N 174.1E 71 256 07m27s

01283 -16 -1463 Aug 23 17:25:29 34305 -42824 A 0.2817 0.9318 32.3N 66.3E 73 266 08m10s

01324 -15 -1445 Sep 04 00:40:23 33929 -42601 A 0.2404 0.9286 26.2N 44.3W 76 276 08m51s

01365 -14 -1427 Sep 14 08:05:58 33555 -42378 A 0.2080 0.9256 20.2N 158.0W 78 286 09m27s

01406 -13 -1409 Sep 25 15:39:41 33183 -42155 A 0.1825 0.9229 14.4N 86.1E 79 296 10m00s

01447 -12 -1391 Oct 05 23:21:33 32813 -41932 A 0.1637 0.9207 8.9N 31.9W 81 304 10m27s

01488 -11 -1373 Oct 17 07:10:35 32445 -41709 A 0.1509 0.9190 3.7N 151.7W 81 310 10m51s

01530 -10 -1355 Oct 27 15:05:56 32080 -41486 A 0.1429 0.9180 1.0S 87.2E 82 314 11m10s

01572 -09 -1337 Nov 07 23:04:53 31716 -41263 A 0.1379 0.9176 5.3S 34.6W 82 316 11m24s

01615 -08 -1319 Nov 18 07:06:24 31354 -41040 A 0.1346 0.9178 9.1S 156.7W 82 315 11m29s

01659 -07 -1301 Nov 29 15:08:25 30995 -40817 A 0.1315 0.9188 12.2S 81.3E 83 311 11m26s

01703 -06 -1283 Dec 09 23:10:06 30637 -40594 A 0.1275 0.9205 14.7S 40.3W 83 303 11m11s

01748 -05 -1265 Dec 21 07:07:40 30282 -40371 A 0.1197 0.9229 16.6S 160.6W 83 293 10m44s

01794 -04 -1247 Dec 31 15:01:47 29929 -40148 A 0.1084 0.9259 17.8S 80.2E 84 280 10m06s

01839 -03 -1228 Jan 11 22:49:04 29577 -39925 A 0.0909 0.9295 18.4S 37.2W 85 265 09m19s

01884 -02 -1210 Jan 22 06:30:03 29228 -39702 A 0.0678 0.9337 18.4S 152.9W 86 248 08m26s
 01929 -01 -1192 Feb 02 14:02:01 28881 -39479 A 0.0364 0.9381 18.0S 93.7E 88 230 07m33s
 01974 00 -1174 Feb 12 21:26:57 28536 -39256 A -0.0013 0.9430 17.2S 18.0W 90 211 06m40s
 02021 01 -1156 Feb 24 04:43:07 28193 -39033 A -0.0471 0.9480 16.2S 127.4W 87 191 05m52s
 02067 02 -1138 Mar 06 11:50:47 27852 -38810 Am -0.1004 0.9532 15.0S 125.2E 84 172 05m07s
 02112 03 -1120 Mar 16 18:50:43 27513 -38587 A -0.1607 0.9582 13.9S 19.8E 81 154 04m28s
 02157 04 -1102 Mar 28 01:44:10 27177 -38364 A -0.2270 0.9632 13.0S 84.0W 77 136 03m52s
 02200 05 -1084 Apr 07 08:32:24 26842 -38141 A -0.2985 0.9678 12.5S 173.5E 73 120 03m22s
 02243 06 -1066 Apr 18 15:15:13 26509 -37918 A -0.3752 0.9722 12.6S 72.2E 68 106 02m56s
 02286 07 -1048 Apr 28 21:56:14 26179 -37695 A -0.4542 0.9760 13.4S 28.7W 63 95 02m33s
 02330 08 -1030 May 10 04:35:16 25850 -37472 A -0.5354 0.9794 15.2S 129.4W 58 85 02m14s
 02373 09 -1012 May 20 11:15:02 25524 -37249 A -0.6168 0.9821 18.0S 129.4E 52 79 01m57s
 02415 10 -0994 May 31 17:55:43 25200 -37026 A -0.6985 0.9841 22.1S 27.6E 46 77 01m44s
 02455 11 -0976 Jun 11 00:40:34 24877 -36803 A -0.7775 0.9854 27.6S 76.0W 39 81 01m34s
 02496 12 -0958 Jun 22 07:29:45 24557 -36580 A -0.8536 0.9859 34.6S 178.7E 31 95 01m27s
 02537 13 -0940 Jul 02 14:24:34 24239 -36357 A -0.9259 0.9853 44.1S 70.9E 22 139 01m24s
 02577 14 -0922 Jul 13 21:26:58 23923 -36134 As -0.9926 0.9822 61.1S 40.6W 5 - 01m27s
 02617 15 -0904 Jul 24 04:37:34 23609 -35911 P -1.0531 0.8902 67.6S 160.1W 0
 02657 16 -0886 Aug 04 11:57:43 23297 -35688 P -1.1068 0.7938 68.6S 77.1E 0
 02698 17 -0868 Aug 14 19:26:56 22987 -35465 P -1.1537 0.7094 69.5S 48.5W 0
 02739 18 -0850 Aug 26 03:06:52 22680 -35242 P -1.1926 0.6394 70.3S 177.5W 0
 02779 19 -0832 Sep 05 10:56:45 22374 -35019 P -1.2242 0.5826 71.0S 50.5E 0
 02820 20 -0814 Sep 16 18:56:14 22070 -34796 P -1.2487 0.5385 71.4S 84.3W 0
 02861 21 -0796 Sep 27 03:05:45 21769 -34573 P -1.2660 0.5073 71.7S 138.0E 0
 02902 22 -0778 Oct 08 11:23:56 21469 -34350 P -1.2773 0.4870 71.6S 2.0W 0
 02943 23 -0760 Oct 18 19:50:33 21172 -34127 P -1.2825 0.4777 71.3S 143.9W 0
 02985 24 -0742 Oct 30 04:22:22 20877 -33904 P -1.2844 0.4742 70.8S 73.2E 0
 03028 25 -0724 Nov 09 13:00:39 20583 -33681 P -1.2820 0.4785 70.1S 70.7W 0

03072	26	-0706	Nov 20	21:41:18	20292	-33458	P	-1.2789	0.4842	69.2S	145.4E	0
03116	27	-0688	Dec 01	06:24:23	20003	-33235	P	-1.2745	0.4922	68.2S	1.5E	0
03161	28	-0670	Dec 12	15:05:49	19716	-33012	P	-1.2723	0.4963	67.1S	141.4W	0
03206	29	-0652	Dec 22	23:46:43	19431	-32789	P	-1.2713	0.4982	66.1S	76.5E	0
03251	30	-0633	Jan 03	08:23:21	19148	-32566	P	-1.2746	0.4922	65.0S	64.1W	0
03297	31	-0615	Jan 13	16:55:37	18868	-32343	P	-1.2820	0.4784	64.1S	156.8E	0
03344	32	-0597	Jan 25	01:21:19	18589	-32120	P	-1.2957	0.4531	63.2S	19.7E	0
03391	33	-0579	Feb 04	09:40:57	18312	-31897	P	-1.3147	0.4174	62.5S	115.7W	0
03438	34	-0561	Feb 15	17:52:30	18038	-31674	P	-1.3409	0.3679	61.9S	111.2E	0
03484	35	-0543	Feb 26	01:57:02	17765	-31451	P	-1.3735	0.3058	61.4S	20.0W	0
03529	36	-0525	Mar 09	09:53:41	17495	-31228	P	-1.4130	0.2300	61.1S	149.1W	0
03574	37	-0507	Mar 19	17:44:28	17226	-31005	P	-1.4579	0.1431	60.9S	83.3E	0
03619	38	-0489	Mar 31	01:26:56	16925	-30782	Pe	-1.5100	0.0418	60.9S	42.3W	0

SAROS SERIES

32

Saros series 32 contains 84 solar eclipses.

NUM.	NUM.	DATE	OF	s	NUM.	TYPE	MAG.	°	°	ALT	WIDTH	DUR.
GREATEST										°	km	
ECLIPSE												

00103	-45	-1957	Sep 24	05:12:58	45415	-48933	Pb	-1.5660	0.0061	60.7S	147.1W	0
00146	-44	-1939	Oct 04	13:00:58	44982	-48710	P	-1.5481	0.0367	60.5S	85.4E	0
00189	-43	-1921	Oct 15	20:56:53	44551	-48487	P	-1.5362	0.0567	60.5S	44.0W	0
00233	-42	-1903	Oct 26	04:57:57	44122	-48264	P	-1.5275	0.0711	60.7S	174.7W	0
00277	-41	-1885	Nov 06	13:03:01	43696	-48041	P	-1.5214	0.0810	61.1S	53.6E	0
00323	-40	-1867	Nov 16	21:10:19	43271	-47818	P	-1.5165	0.0884	61.6S	78.8W	0
00369	-39	-1849	Nov 28	05:19:01	42849	-47595	P	-1.5121	0.0947	62.2S	148.2E	0
00415	-38	-1831	Dec 08	13:25:07	42428	-47372	P	-1.5050	0.1053	63.0S	15.7E	0
00460	-37	-1813	Dec 19	21:29:10	42010	-47149	P	-1.4956	0.1196	63.9S	116.5W	0
00506	-36	-1795	Dec 30	05:27:20	41594	-46926	P	-1.4807	0.1432	64.9S	112.3E	0
00552	-35	-1776	Jan 10	13:21:28	41179	-46703	P	-1.4616	0.1738	66.0S	18.2W	0
00597	-34	-1758	Jan 20	21:06:35	40767	-46480	P	-1.4347	0.2181	67.1S	146.9W	0
00642	-33	-1740	Feb 01	04:46:24	40357	-46257	P	-1.4026	0.2717	68.1S	85.2E	0
00688	-32	-1722	Feb 11	12:16:43	39949	-46034	P	-1.3621	0.3405	69.1S	40.9W	0
00734	-31	-1704	Feb 22	19:40:22	39543	-45811	P	-1.3152	0.4213	70.0S	165.9W	0
00778	-30	-1686	Mar 05	02:54:52	39139	-45588	P	-1.2597	0.5183	70.7S	70.8E	0
00821	-29	-1668	Mar 15	10:04:15	38737	-45365	P	-1.1992	0.6254	71.3S	51.7W	0
00862	-28	-1650	Mar 26	17:06:50	38338	-45142	P	-1.1319	0.7457	71.6S	172.9W	0
00903	-27	-1632	Apr 06	00:04:42	37940	-44919	P	-1.0596	0.8763	71.7S	67.0E	0
00944	-26	-1614	Apr 17	06:58:45	37544	-44696	A	-0.9828	0.9847	67.3S	77.0W	10 317 01m04s
00985	-25	-1596	Apr 27	13:51:25	37151	-44473	A	-0.9034	0.9937	52.6S	151.4E	25 51 00m31s
01026	-24	-1578	May 08	20:43:09	36759	-44250	H	-0.8219	1.0005	41.0S	36.9E	34 3 00m03s
01067	-23	-1560	May 19	03:35:10	36370	-44027	H	-0.7395	1.0062	30.8S	73.9W	42 32 00m37s
01107	-22	-1542	May 30	10:30:04	35983	-43804	H	-0.6579	1.0109	21.9S	176.3E	49 50 01m09s
01147	-21	-1524	Jun 09	17:28:51	35598	-43581	T	-0.5781	1.0148	14.0S	66.8E	55 62 01m37s

01187 -20 -1506 Jun 21 00:32:06 35214 -43358 T -0.5007 1.0180 7.2S 42.9W 60 71 02m00s
 01227 -19 -1488 Jul 01 07:42:06 34833 -43135 T -0.4278 1.0204 1.5S 153.4W 65 77 02m15s
 01267 -18 -1470 Jul 12 14:59:27 34454 -42912 T -0.3600 1.0221 2.9N 95.0E 69 81 02m24s
 01307 -17 -1452 Jul 22 22:25:55 34077 -42689 T -0.2987 1.0233 6.0N 18.4W 73 83 02m27s
 01349 -16 -1434 Aug 03 05:59:35 33703 -42466 T -0.2425 1.0240 7.8N 133.1W 76 84 02m26s
 01390 -15 -1416 Aug 13 13:44:07 33330 -42243 T -0.1945 1.0243 8.3N 109.6E 79 84 02m23s
 01431 -14 -1398 Aug 24 21:37:16 32959 -42020 T -0.1528 1.0243 7.7N 9.8W 81 83 02m18s
 01472 -13 -1380 Sep 04 05:41:07 32590 -41797 T -0.1195 1.0242 6.0N 132.1W 83 83 02m14s
 01514 -12 -1362 Sep 15 13:53:07 32224 -41574 T -0.0924 1.0240 3.4N 103.5E 85 82 02m10s
 01556 -11 -1344 Sep 25 22:15:23 31859 -41351 T -0.0731 1.0240 0.1N 23.8W 86 82 02m08s
 01599 -10 -1326 Oct 07 06:45:01 31497 -41128 T -0.0592 1.0241 3.7S 153.0W 87 82 02m07s
 01642 -09 -1308 Oct 17 15:21:35 31136 -40905 T -0.0506 1.0246 7.8S 76.0E 87 84 02m09s
 01685 -08 -1290 Oct 29 00:03:50 30778 -40682 T -0.0460 1.0254 11.9S 56.4W 87 86 02m14s
 01730 -07 -1272 Nov 08 08:50:37 30422 -40459 T -0.0451 1.0267 16.0S 170.4E 87 91 02m21s
 01775 -06 -1254 Nov 19 17:39:29 30068 -40236 T -0.0450 1.0285 19.6S 37.0E 87 97 02m32s
 01821 -05 -1236 Nov 30 02:28:34 29716 -40013 T -0.0448 1.0308 22.6S 96.0W 87 104 02m46s
 01866 -04 -1218 Dec 11 11:17:09 29366 -39790 T -0.0436 1.0336 24.7S 131.6E 87 114 03m03s
 01911 -03 -1200 Dec 21 20:03:15 29018 -39567 Tm -0.0403 1.0370 25.9S 0.1E 88 124 03m22s
 01956 -02 -1181 Jan 02 04:44:26 28672 -39344 T -0.0323 1.0408 25.8S 130.1W 88 137 03m45s
 02002 -01 -1163 Jan 12 13:20:23 28328 -39121 T -0.0199 1.0449 24.5S 100.9E 89 150 04m08s
 02048 00 -1145 Jan 23 21:49:22 27986 -38898 T -0.0012 1.0493 21.9S 26.7W 90 164 04m33s
 02094 01 -1127 Feb 03 06:11:50 27647 -38675 T 0.0231 1.0538 18.3S 153.3W 89 178 04m59s
 02139 02 -1109 Feb 14 14:25:24 27309 -38452 T 0.0548 1.0583 13.5S 81.6E 87 192 05m23s
 02182 03 -1091 Feb 24 22:32:15 26974 -38229 T 0.0926 1.0627 7.9S 42.4W 85 206 05m45s
 02225 04 -1073 Mar 08 06:30:33 26640 -38006 T 0.1377 1.0668 1.5S 164.9W 82 220 06m03s
 02268 05 -1055 Mar 18 14:21:47 26309 -37783 T 0.1890 1.0706 5.5N 74.0E 79 234 06m17s
 02311 06 -1037 Mar 29 22:05:45 25980 -37560 T 0.2467 1.0737 12.9N 45.7W 76 246 06m25s
 02356 07 -1019 Apr 09 05:44:22 25652 -37337 T 0.3091 1.0763 20.8N 164.2W 72 259 06m26s

02398	08	-1001	Apr 20	13:18:07	25327	-37114	T	0.3758	1.0780	28.9N	78.6E	68	272	06m20s
02439	09	-0983	Apr 30	20:47:10	25004	-36891	T	0.4466	1.0790	37.2N	37.3W	63	285	06m08s
02480	10	-0965	May 12	04:14:07	24683	-36668	T	0.5194	1.0789	45.6N	152.1W	58	298	05m49s
02521	11	-0947	May 22	11:39:03	24364	-36445	T	0.5940	1.0780	54.0N	94.4E	53	314	05m25s
02562	12	-0929	Jun 02	19:04:07	24048	-36222	T	0.6682	1.0760	62.4N	17.4W	48	332	04m58s
02602	13	-0911	Jun 13	02:28:32	23733	-35999	T	0.7427	1.0730	70.7N	125.6W	42	356	04m29s
02641	14	-0893	Jun 24	09:56:27	23420	-35776	T	0.8142	1.0689	78.3N	135.1E	35	391	03m59s
02682	15	-0875	Jul 04	17:26:33	23109	-35553	T	0.8836	1.0638	83.0N	70.1E	28	452	03m28s
02723	16	-0857	Jul 16	01:01:26	22801	-35330	T	0.9487	1.0572	78.3N	14.1E	18	615	02m55s
02763	17	-0839	Jul 26	08:40:54	22494	-35107	T+	1.0095	1.0002	63.5N	73.2W	0		
02803	18	-0821	Aug 06	16:27:42	22190	-34884	P	1.0639	0.8944	62.7N	159.5E	0		
02844	19	-0803	Aug 17	00:20:48	21888	-34661	P	1.1127	0.7997	62.0N	30.8E	0		
02885	20	-0785	Aug 28	08:20:47	21587	-34438	P	1.1557	0.7171	61.5N	99.4W	0		
02926	21	-0767	Sep 07	16:28:36	21289	-34215	P	1.1919	0.6479	61.0N	128.6E	0		
02968	22	-0749	Sep 19	00:44:21	20993	-33992	P	1.2213	0.5921	60.8N	5.4W	0		
03010	23	-0731	Sep 29	09:07:08	20699	-33769	P	1.2448	0.5479	60.7N	140.9W	0		
03054	24	-0713	Oct 10	17:36:39	20407	-33546	P	1.2624	0.5150	60.7N	81.8E	0		
03098	25	-0695	Oct 21	02:12:00	20117	-33323	P	1.2752	0.4913	61.0N	56.9W	0		
03143	26	-0677	Nov 01	10:52:30	19829	-33100	P	1.2834	0.4762	61.4N	163.0E	0		
03188	27	-0659	Nov 11	19:34:53	19543	-32877	P	1.2898	0.4646	61.9N	22.3E	0		
03233	28	-0641	Nov 23	04:20:11	19260	-32654	P	1.2934	0.4580	62.6N	119.3W	0		
03279	29	-0623	Dec 03	13:04:26	18978	-32431	P	1.2971	0.4513	63.5N	99.2E	0		
03325	30	-0605	Dec 14	21:47:46	18699	-32208	P	1.3013	0.4437	64.4N	42.4W	0		
03372	31	-0587	Dec 25	06:25:44	18421	-31985	P	1.3093	0.4291	65.4N	177.0E	0		
03420	32	-0568	Jan 05	15:00:23	18146	-31762	P	1.3194	0.4109	66.5N	36.8E	0		
03466	33	-0550	Jan 15	23:27:20	17872	-31539	P	1.3348	0.3829	67.6N	102.0W	0		
03511	34	-0532	Jan 27	07:46:52	17601	-31316	P	1.3558	0.3448	68.6N	120.5E	0		
03556	35	-0514	Feb 06	15:56:48	17332	-31093	P	1.3837	0.2942	69.6N	15.2W	0		

03601 36 -0496 Feb 17 23:58:10 17052 -30870 P 1.4180 0.2319 70.4N 149.4W 0

03646 37 -0478 Feb 28 07:49:20 16734 -30647 P 1.4597 0.1563 71.1N 78.2E 0

03690 38 -0460 Mar 10 15:30:30 16425 -30424 Pe 1.5085 0.0679 71.5N 52.1W 0

SAROS SERIES

33

Saros series 33 contains 84 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

00042 -49 -1982 Aug 02 01:40:26 46022 -49244 Pb 1.4996 0.0678 67.5N 157.3E 0

00085 -48 -1964 Aug 12 09:35:44 45586 -49021 P 1.4540 0.1540 68.5N 25.2E 0

00128 -47 -1946 Aug 23 17:40:35 45153 -48798 P 1.4157 0.2262 69.4N 109.9W 0

00171 -46 -1928 Sep 03 01:53:33 44721 -48575 P 1.3838 0.2863 70.2N 112.4E 0

00215 -45 -1910 Sep 14 10:16:33 44291 -48352 P 1.3600 0.3312 70.9N 28.4W 0

00259 -44 -1892 Sep 24 18:46:57 43864 -48129 P 1.3420 0.3652 71.4N 171.6W 0

00304 -43 -1874 Oct 06 03:24:58 43438 -47906 P 1.3299 0.3878 71.6N 43.0E 0

00351	-42	-1856	Oct 16	12:08:28	43015	-47683	P	1.3223	0.4022	71.5N	103.9W	0
00397	-41	-1838	Oct 27	20:57:36	42594	-47460	P	1.3189	0.4084	71.2N	108.1E	0
00442	-40	-1820	Nov 07	05:49:12	42175	-47237	P	1.3177	0.4108	70.7N	40.2W	0
00488	-39	-1802	Nov 18	14:42:23	41758	-47014	P	1.3175	0.4110	69.9N	171.6E	0
00535	-38	-1784	Nov 28	23:35:25	41342	-46791	P	1.3172	0.4116	69.0N	24.2E	0
00580	-37	-1766	Dec 10	08:27:16	40929	-46568	P	1.3157	0.4144	68.0N	122.3W	0
00625	-36	-1748	Dec 20	17:14:20	40519	-46345	P	1.3104	0.4242	66.9N	93.0E	0
00670	-35	-1729	Jan 01	01:57:02	40110	-46122	P	1.3017	0.4405	65.9N	50.1W	0
00717	-34	-1711	Jan 11	10:32:45	39703	-45899	P	1.2875	0.4674	64.8N	169.1E	0
00761	-33	-1693	Jan 22	19:02:44	39298	-45676	P	1.2686	0.5034	63.9N	30.1E	0
00805	-32	-1675	Feb 02	03:22:41	38896	-45453	P	1.2417	0.5548	63.0N	106.1W	0
00846	-31	-1657	Feb 13	11:36:16	38495	-45230	P	1.2097	0.6162	62.3N	119.5E	0
00887	-30	-1639	Feb 23	19:39:29	38097	-45007	P	1.1695	0.6937	61.6N	12.0W	0
00928	-29	-1621	Mar 07	03:36:28	37700	-44784	P	1.1243	0.7812	61.2N	141.8W	0
00969	-28	-1603	Mar 17	11:23:31	37306	-44561	P	1.0711	0.8846	60.8N	91.0E	0
01010	-27	-1585	Mar 28	19:05:42	36914	-44338	P	1.0137	0.9960	60.6N	35.0W	0
01051	-26	-1567	Apr 08	02:40:01	36523	-44115	T	0.9502	1.0617	57.0N	125.2W	18 649 03m40s
01092	-25	-1549	Apr 19	10:10:16	36135	-43892	T	0.8833	1.0653	55.0N	130.4E	28 449 04m00s
01132	-24	-1531	Apr 29	17:35:10	35749	-43669	T	0.8123	1.0672	54.2N	24.5E	35 371 04m13s
01171	-23	-1513	May 11	00:58:13	35365	-43446	T	0.7399	1.0680	53.9N	81.7W	42 326 04m23s
01211	-22	-1495	May 21	08:18:46	34983	-43223	T	0.6657	1.0676	53.6N	172.9E	48 294 04m29s
01251	-21	-1477	Jun 01	15:38:49	34604	-43000	T	0.5914	1.0662	52.9N	67.8E	53 267 04m33s
01291	-20	-1459	Jun 11	22:59:34	34226	-42777	T	0.5183	1.0638	51.5N	37.8W	59 244 04m34s
01332	-19	-1441	Jun 23	06:22:32	33850	-42554	T	0.4478	1.0606	49.3N	144.5W	63 223 04m32s
01373	-18	-1423	Jul 03	13:48:32	33477	-42331	T	0.3805	1.0566	46.2N	107.2E	67 202 04m27s
01415	-17	-1405	Jul 14	21:18:35	33105	-42108	T	0.3172	1.0519	42.3N	3.4W	71 182 04m17s
01456	-16	-1387	Jul 25	04:54:11	32736	-41885	T	0.2592	1.0467	37.8N	116.4W	75 161 04m02s
01498	-15	-1369	Aug 05	12:35:59	32368	-41662	T	0.2075	1.0410	32.8N	128.0E	78 140 03m41s

01540 -14 -1351 Aug 15 20:23:41 32003 -41439 T 0.1616 1.0350 27.5N 10.0E 81 119 03m16s
01582 -13 -1333 Aug 27 04:19:26 31640 -41216 T 0.1231 1.0289 22.0N 110.6W 83 99 02m46s
01625 -12 -1315 Sep 06 12:22:22 31278 -40993 T 0.0914 1.0228 16.4N 126.6E 85 78 02m14s
01669 -11 -1297 Sep 17 20:33:36 30919 -40770 H3 0.0674 1.0168 10.8N 1.4E 86 58 01m40s
01713 -10 -1279 Sep 28 04:50:38 30562 -40547 H 0.0489 1.0110 5.4N 125.3W 87 38 01m07s
01757 -09 -1261 Oct 09 13:15:03 30207 -40324 H 0.0373 1.0056 0.3N 106.3E 88 19 00m35s
01803 -08 -1243 Oct 19 21:44:13 29854 -40101 H 0.0303 1.0006 4.6S 23.2W 88 2 00m04s
01848 -07 -1225 Oct 31 06:17:37 29504 -39878 Am 0.0274 0.9963 9.0S 153.5W 88 13 00m24s
01893 -06 -1207 Nov 10 14:53:08 29155 -39655 A 0.0270 0.9923 12.9S 76.0E 89 27 00m49s
01938 -05 -1189 Nov 21 23:29:47 28808 -39432 A 0.0280 0.9891 16.3S 54.4W 88 38 01m11s
01984 -04 -1171 Dec 02 08:05:21 28464 -39209 A 0.0291 0.9864 19.0S 175.9E 88 48 01m29s
02031 -03 -1153 Dec 13 16:37:21 28121 -38986 A 0.0277 0.9844 21.1S 47.3E 89 55 01m43s
02077 -02 -1135 Dec 24 01:05:28 27781 -38763 A 0.0240 0.9828 22.4S 80.0W 89 61 01m54s
02122 -01 -1116 Jan 04 09:27:08 27442 -38540 A 0.0153 0.9818 23.0S 154.4E 89 65 02m00s
02166 00 -1098 Jan 14 17:41:00 27106 -38317 A 0.0011 0.9811 23.1S 30.9E 90 67 02m03s
02209 01 -1080 Jan 26 01:45:40 26772 -38094 A -0.0200 0.9808 22.5S 90.4W 89 68 02m03s
02252 02 -1062 Feb 05 09:41:12 26439 -37871 A -0.0479 0.9806 21.6S 150.6E 87 69 02m02s
02295 03 -1044 Feb 16 17:26:53 26109 -37648 A -0.0834 0.9805 20.3S 33.9E 85 70 02m00s
02339 04 -1026 Feb 27 01:00:56 25781 -37425 A -0.1278 0.9803 18.9S 79.9W 83 70 01m59s
02381 05 -1008 Mar 09 08:25:24 25455 -37202 A -0.1792 0.9801 17.4S 168.6E 80 72 01m59s
02423 06 -0990 Mar 20 15:39:10 25131 -36979 A -0.2387 0.9795 16.2S 59.8E 76 75 02m02s
02464 07 -0972 Mar 30 22:44:13 24810 -36756 A -0.3046 0.9787 15.3S 46.9W 72 79 02m08s
02505 08 -0954 Apr 11 05:39:32 24490 -36533 A -0.3777 0.9774 15.0S 151.2W 68 86 02m18s
02546 09 -0936 Apr 21 12:28:14 24172 -36310 A -0.4554 0.9757 15.5S 106.1E 63 96 02m32s
02586 10 -0918 May 02 19:10:05 23857 -36087 A -0.5374 0.9733 17.0S 5.0E 57 111 02m52s
02626 11 -0900 May 13 01:46:44 23543 -35864 A -0.6227 0.9703 19.8S 95.0W 51 133 03m16s
02666 12 -0882 May 24 08:19:43 23232 -35641 A -0.7099 0.9666 23.9S 165.5E 45 167 03m44s
02707 13 -0864 Jun 03 14:50:41 22922 -35418 A -0.7974 0.9623 29.9S 66.2E 37 223 04m13s

02747 14 -0846 Jun 14 21:21:50 22615 -35195 A -0.8837 0.9570 38.2S 33.7W 28 333 04m38s
 02787 15 -0828 Jun 25 03:52:55 22310 -34972 A -0.9689 0.9501 51.8S 133.5W 14 763 04m51s
 02828 16 -0810 Jul 06 10:28:10 22007 -34749 P -1.0492 0.8815 66.0S 123.2E 0
 02869 17 -0792 Jul 16 17:06:39 21706 -34526 P -1.1258 0.7483 67.0S 11.7E 0
 02910 18 -0774 Jul 27 23:52:12 21407 -34303 P -1.1957 0.6275 68.1S 102.0W 0
 02952 19 -0756 Aug 07 06:42:52 21110 -34080 P -1.2607 0.5162 69.1S 142.4E 0
 02994 20 -0738 Aug 18 13:43:07 20815 -33857 P -1.3171 0.4204 70.0S 23.8E 0
 03038 21 -0720 Aug 28 20:50:35 20522 -33634 P -1.3668 0.3368 70.7S 97.2W 0
 03082 22 -0702 Sep 09 04:07:20 20231 -33411 P -1.4085 0.2675 71.3S 138.9E 0
 03126 23 -0684 Sep 19 11:32:18 19942 -33188 P -1.4430 0.2106 71.7S 12.6E 0
 03171 24 -0666 Sep 30 19:07:00 19656 -32965 P -1.4695 0.1675 71.8S 116.5W 0
 03216 25 -0648 Oct 11 02:49:02 19371 -32742 P -1.4896 0.1352 71.7S 112.6E 0
 03261 26 -0630 Oct 22 10:37:57 19089 -32519 P -1.5039 0.1124 71.3S 19.8W 0
 03307 27 -0612 Nov 01 18:32:05 18809 -32296 P -1.5137 0.0970 70.7S 153.0W 0
 03354 28 -0594 Nov 13 02:31:13 18530 -32073 P -1.5195 0.0880 69.9S 73.1E 0
 03401 29 -0576 Nov 23 10:31:23 18254 -31850 P -1.5242 0.0804 68.9S 60.4W 0
 03448 30 -0558 Dec 04 18:33:02 17980 -31627 P -1.5277 0.0747 67.9S 166.4E 0
 03493 31 -0540 Dec 15 02:32:19 17708 -31404 P -1.5331 0.0654 66.8S 34.4E 0
 03538 32 -0522 Dec 26 10:30:10 17438 -31181 P -1.5394 0.0543 65.7S 96.7W 0
 03583 33 -0503 Jan 05 18:21:11 17170 -30958 P -1.5515 0.0332 64.7S 134.4E 0
 03628 34 -0485 Jan 17 02:08:17 16858 -30735 Pe -1.5666 0.0066 63.7S 6.6E 0

SAROS SERIES

Saros series 34 contains 86 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
ECLIPSE													

00198	-37	-1917 Aug 04	07:51:37	44461	-48440	Pb	-1.5248	0.0346	63.5S	148.9W	0		
00242	-36	-1899 Aug 14	15:31:53	44032	-48217	P	-1.4863	0.1079	62.7S	84.8E	0		
00287	-35	-1881 Aug 25	23:20:13	43606	-47994	P	-1.4549	0.1672	62.0S	43.2W	0		
00333	-34	-1863 Sep 05	07:16:15	43182	-47771	P	-1.4302	0.2136	61.4S	173.0W	0		
00379	-33	-1845 Sep 16	15:18:31	42760	-47548	P	-1.4111	0.2495	61.0S	55.8E	0		
00425	-32	-1827 Sep 26	23:28:24	42340	-47325	P	-1.3988	0.2727	60.7S	77.2W	0		
00470	-31	-1809 Oct 08	07:43:56	41922	-47102	P	-1.3919	0.2862	60.6S	148.5E	0		
00517	-30	-1791 Oct 18	16:05:01	41506	-46879	P	-1.3898	0.2908	60.7S	12.8E	0		
00562	-29	-1773 Oct 30	00:28:20	41092	-46656	P	-1.3904	0.2907	61.0S	123.4W	0		
00607	-28	-1755 Nov 09	08:54:37	40680	-46433	P	-1.3940	0.2852	61.4S	99.5E	0		
00652	-27	-1737 Nov 20	17:20:19	40271	-46210	P	-1.3979	0.2791	61.9S	37.6W	0		
00698	-26	-1719 Dec 01	01:44:30	39863	-45987	P	-1.4014	0.2734	62.6S	174.4W	0		
00743	-25	-1701 Dec 12	10:04:20	39458	-45764	P	-1.4024	0.2720	63.5S	49.6E	0		
00787	-24	-1683 Dec 22	18:19:28	39054	-45541	P	-1.4005	0.2754	64.4S	85.5W	0		
00829	-23	-1664 Jan 03	02:26:41	38653	-45318	P	-1.3932	0.2881	65.4S	141.0E	0		
00870	-22	-1646 Jan 13	10:25:39	38254	-45095	P	-1.3800	0.3109	66.4S	9.1E	0		
00911	-21	-1628 Jan 24	18:14:58	37856	-44872	P	-1.3600	0.3452	67.5S	120.8W	0		

00952 -20 -1610 Feb 04 01:55:01 37461 -44649 P -1.3337 0.3905 68.5S 111.1E 0
 00993 -19 -1592 Feb 15 09:22:30 37068 -44426 P -1.2977 0.4525 69.5S 14.4W 0
 01035 -18 -1574 Feb 25 16:40:43 36677 -44203 P -1.2549 0.5262 70.3S 138.2W 0
 01076 -17 -1556 Mar 07 23:47:10 36288 -43980 P -1.2031 0.6157 71.0S 100.4E 0
 01116 -16 -1538 Mar 19 06:45:45 35901 -43757 P -1.1456 0.7152 71.4S 19.5W 0
 01156 -15 -1520 Mar 29 13:32:25 35517 -43534 P -1.0788 0.8307 71.7S 136.6W 0
 01196 -14 -1502 Apr 09 20:13:36 35134 -43311 A- -1.0080 0.9531 71.7S 107.4E 0
 01236 -13 -1484 Apr 20 02:45:50 34753 -43088 A -0.9299 0.9493 57.7S 45.3W 21 506 04m24s
 01276 -12 -1466 May 01 09:14:05 34375 -42865 A -0.8490 0.9511 45.4S 156.9W 32 336 04m54s
 01316 -11 -1448 May 11 15:36:15 33998 -42642 A -0.7633 0.9518 34.5S 98.5E 40 271 05m26s
 01357 -10 -1430 May 22 21:58:08 33624 -42419 A -0.6776 0.9517 24.9S 3.5W 47 239 05m58s
 01398 -09 -1412 Jun 02 04:17:50 33251 -42196 A -0.5902 0.9509 16.1S 103.7W 54 222 06m30s
 01439 -08 -1394 Jun 13 10:39:05 32881 -41973 A -0.5042 0.9497 8.3S 156.8E 60 214 06m58s
 01481 -07 -1376 Jun 23 17:02:24 32513 -41750 A -0.4201 0.9478 1.5S 57.7E 65 211 07m22s
 01523 -06 -1358 Jul 04 23:30:55 32147 -41527 A -0.3401 0.9456 4.1N 41.8W 70 213 07m38s
 01565 -05 -1340 Jul 15 06:04:48 31783 -41304 A -0.2647 0.9430 8.4N 141.9W 75 218 07m50s
 01608 -04 -1322 Jul 26 12:45:15 31421 -41081 A -0.1947 0.9402 11.5N 116.9E 79 226 07m57s
 01652 -03 -1304 Aug 05 19:34:32 31061 -40858 A -0.1318 0.9373 13.3N 13.9E 83 235 08m02s
 01695 -02 -1286 Aug 17 02:32:37 30703 -40635 A -0.0758 0.9343 13.8N 91.1W 86 246 08m08s
 01740 -01 -1268 Aug 27 09:40:13 30347 -40412 A -0.0277 0.9313 13.1N 161.4E 88 257 08m15s
 01785 00 -1250 Sep 07 16:57:41 29993 -40189 A 0.0126 0.9285 11.4N 51.2E 89 268 08m24s
 01830 01 -1232 Sep 18 00:25:27 29642 -39966 A 0.0445 0.9261 8.8N 61.9W 87 278 08m36s
 01875 02 -1214 Sep 29 08:02:25 29292 -39743 A 0.0692 0.9239 5.7N 177.5W 86 287 08m49s
 01920 03 -1196 Oct 09 15:46:43 28945 -39520 A 0.0883 0.9223 2.1N 64.8E 85 295 09m03s
 01965 04 -1178 Oct 20 23:38:55 28599 -39297 A 0.1010 0.9212 1.6S 55.0W 84 299 09m18s
 02012 05 -1160 Oct 31 07:36:48 28256 -39074 A 0.1089 0.9207 5.4S 176.2W 84 302 09m32s
 02058 06 -1142 Nov 11 15:38:43 27915 -38851 Am 0.1140 0.9209 8.9S 61.8E 84 301 09m43s
 02104 07 -1124 Nov 21 23:42:19 27575 -38628 A 0.1179 0.9218 11.9S 60.4W 83 298 09m52s

02149	08	-1106	Dec 03	07:46:45	27238	-38405	A	0.1215	0.9234	14.2S	177.4E	83	291	09m54s
02192	09	-1088	Dec 13	15:50:10	26903	-38182	A	0.1263	0.9256	15.7S	55.8E	83	282	09m49s
02235	10	-1070	Dec 24	23:49:37	26570	-37959	A	0.1345	0.9286	16.1S	64.7W	82	270	09m35s
02278	11	-1051	Jan 04	07:45:10	26239	-37736	A	0.1463	0.9321	15.4S	175.7E	82	256	09m13s
02321	12	-1033	Jan 15	15:34:09	25911	-37513	A	0.1641	0.9363	13.5S	57.5E	81	240	08m40s
02364	13	-1015	Jan 25	23:17:06	25584	-37290	A	0.1874	0.9408	10.4S	59.6W	79	223	08m00s
02406	14	-0997	Feb 06	06:51:15	25259	-37067	A	0.2187	0.9458	6.1S	174.9W	77	205	07m12s
02447	15	-0979	Feb 16	14:18:54	24936	-36844	A	0.2559	0.9509	0.9S	70.7E	75	186	06m22s
02488	16	-0961	Feb 27	21:37:59	24616	-36621	A	0.3008	0.9562	5.2N	42.0W	72	167	05m29s
02529	17	-0943	Mar 10	04:49:16	24297	-36398	A	0.3529	0.9616	12.0N	153.4W	69	148	04m37s
02570	18	-0925	Mar 21	11:53:19	23981	-36175	A	0.4117	0.9668	19.6N	96.7E	66	131	03m47s
02610	19	-0907	Mar 31	18:51:35	23667	-35952	A	0.4761	0.9718	27.7N	12.2W	61	114	03m01s
02650	20	-0889	Apr 12	01:45:06	23354	-35729	A	0.5451	0.9765	36.2N	120.2W	57	100	02m21s
02691	21	-0871	Apr 22	08:33:40	23044	-35506	A	0.6188	0.9806	45.3N	132.7E	52	87	01m47s
02732	22	-0853	May 03	15:20:43	22736	-35283	A	0.6946	0.9842	54.7N	25.5E	46	78	01m20s
02771	23	-0835	May 13	22:06:10	22430	-35060	A	0.7727	0.9870	64.7N	82.3W	39	72	00m59s
02812	24	-0817	May 25	04:52:07	22126	-34837	A	0.8508	0.9891	75.2N	165.4E	31	74	00m45s
02853	25	-0799	Jun 04	11:39:33	21824	-34614	A	0.9286	0.9897	85.1N	5.0E	21	100	00m38s
02894	26	-0781	Jun 15	18:31:09	21524	-34391	P	1.0037	0.9815	67.1N	173.0E	0		
02935	27	-0763	Jun 26	01:27:44	21227	-34168	P	1.0758	0.8521	66.1N	57.0E	0		
02977	28	-0745	Jul 07	08:29:47	20931	-33945	P	1.1442	0.7287	65.1N	60.0W	0		
03019	29	-0727	Jul 17	15:40:03	20637	-33722	P	1.2069	0.6153	64.2N	178.6W	0		
03064	30	-0709	Jul 28	22:58:08	20346	-33499	P	1.2640	0.5116	63.4N	61.1E	0		
03108	31	-0691	Aug 08	06:26:10	20056	-33276	P	1.3141	0.4206	62.6N	61.4W	0		
03153	32	-0673	Aug 19	14:02:13	19769	-33053	P	1.3585	0.3398	62.0N	174.2E	0		
03198	33	-0655	Aug 29	21:50:00	19483	-32830	P	1.3946	0.2742	61.5N	47.1E	0		
03243	34	-0637	Sep 10	05:46:18	19200	-32607	P	1.4247	0.2194	61.1N	81.9W	0		
03289	35	-0619	Sep 20	13:53:27	18919	-32384	P	1.4468	0.1791	60.9N	146.3E	0		

03336	36	-0601	Oct 01	22:08:38	18640	-32161	P	1.4634	0.1489	60.8N	12.7E	0
03383	37	-0583	Oct 12	06:33:42	18363	-31938	P	1.4728	0.1316	61.0N	123.5W	0
03430	38	-0565	Oct 23	15:04:39	18088	-31715	P	1.4784	0.1212	61.2N	98.9E	0
03476	39	-0547	Nov 02	23:41:55	17815	-31492	P	1.4798	0.1182	61.7N	40.4W	0
03521	40	-0529	Nov 14	08:23:11	17544	-31269	P	1.4787	0.1195	62.2N	179.2E	0
03566	41	-0511	Nov 24	17:08:19	17275	-31046	P	1.4749	0.1257	63.0N	37.6E	0
03611	42	-0493	Dec 06	01:53:20	16984	-30823	P	1.4722	0.1296	63.8N	104.3W	0
03655	43	-0475	Dec 16	10:38:23	16668	-30600	P	1.4701	0.1323	64.8N	113.4E	0
03699	44	-0457	Dec 27	19:20:31	16361	-30377	P	1.4710	0.1292	65.8N	28.5W	0
03742	45	-0438	Jan 07	04:00:16	16062	-30154	P	1.4745	0.1211	66.8N	170.3W	0
03786	46	-0420	Jan 18	12:33:13	15772	-29931	P	1.4838	0.1019	67.8N	49.2E	0
03828	47	-0402	Jan 28	21:01:43	15489	-29708	P	1.4974	0.0746	68.8N	90.8W	0
03870	48	-0384	Feb 09	05:21:47	15213	-29485	Pe	1.5182	0.0332	69.7N	130.8E	0

SAROS SERIES

35

Saros series 35 contains 84 solar eclipses.

NUM.	NUM.	DATE	OF	s	NUM.	TYPE	MAG.	°	°	ALT	WIDTH	DUR.
GREATEST										°	km	
ECLIPSE												

00314	-35	-1870	Jul 25	01:47:41	43349	-47859	Pb	1.5600	0.0081	66.8N	151.8E	0
00361	-34	-1852	Aug 04	08:41:15	42926	-47636	P	1.5009	0.1091	67.9N	35.6E	0
00407	-33	-1834	Aug 15	15:45:30	42505	-47413	P	1.4493	0.1971	68.9N	83.8W	0
00452	-32	-1816	Aug 25	22:59:47	42087	-47190	P	1.4050	0.2724	69.8N	153.6E	0
00498	-31	-1798	Sep 06	06:25:28	41670	-46967	P	1.3692	0.3331	70.6N	27.6E	0
00544	-30	-1780	Sep 16	14:01:07	41255	-46744	P	1.3406	0.3814	71.2N	101.6W	0
00589	-29	-1762	Sep 27	21:45:47	40843	-46521	P	1.3186	0.4185	71.6N	126.6E	0
00634	-28	-1744	Oct 08	05:39:41	40432	-46298	P	1.3033	0.4443	71.7N	7.8W	0
00680	-27	-1726	Oct 19	13:40:25	40024	-46075	P	1.2925	0.4624	71.6N	144.0W	0
00726	-26	-1708	Oct 29	21:47:25	39618	-45852	P	1.2865	0.4725	71.2N	78.5E	0
00770	-25	-1690	Nov 10	05:56:47	39213	-45629	P	1.2815	0.4809	70.6N	59.0W	0
00814	-24	-1672	Nov 20	14:09:47	38811	-45406	P	1.2789	0.4852	69.7N	163.1E	0
00854	-23	-1654	Dec 01	22:21:49	38411	-45183	P	1.2745	0.4928	68.8N	26.2E	0
00895	-22	-1636	Dec 12	06:32:48	38013	-44960	P	1.2687	0.5027	67.7N	109.8W	0
00936	-21	-1618	Dec 23	14:39:12	37617	-44737	P	1.2582	0.5207	66.6N	115.9E	0
00977	-20	-1599	Jan 02	22:41:56	37223	-44514	P	1.2439	0.5453	65.5N	16.9W	0
01018	-19	-1581	Jan 14	06:38:15	36831	-44291	P	1.2234	0.5810	64.5N	147.6W	0
01059	-18	-1563	Jan 24	14:27:55	36442	-44068	P	1.1965	0.6282	63.5N	83.6E	0
01100	-17	-1545	Feb 04	22:09:58	36054	-43845	P	1.1621	0.6891	62.7N	42.8W	0
01140	-16	-1527	Feb 15	05:44:59	35668	-43622	P	1.1210	0.7626	62.0N	167.3W	0
01180	-15	-1509	Feb 26	13:11:48	35285	-43399	P	1.0720	0.8508	61.4N	70.4E	0
01220	-14	-1491	Mar 08	20:32:07	34903	-43176	P	1.0164	0.9520	60.9N	50.1W	0
01260	-13	-1473	Mar 20	03:45:39	34524	-42953	A	0.9541	0.9823	53.6N	140.1W	17 207 01m19s
01300	-12	-1455	Mar 30	10:54:58	34147	-42730	A	0.8869	0.9909	49.7N	118.4E	27 67 00m42s
01341	-11	-1437	Apr 10	17:57:46	33771	-42507	A	0.8132	0.9987	47.6N	16.1E	35 8 00m06s

01382 -10 -1419 Apr 21 00:58:56 33398 -42284 H 0.7371 1.0055 46.5N 86.5W 42 28 00m26s
01423 -09 -1401 May 02 07:56:36 33027 -42061 H 0.6571 1.0118 45.9N 171.9E 49 53 00m55s
01464 -08 -1383 May 12 14:55:38 32658 -41838 T 0.5768 1.0173 45.4N 70.0E 55 72 01m22s
01506 -07 -1365 May 23 21:53:13 32291 -41615 T 0.4943 1.0220 44.6N 31.2W 60 86 01m47s
01548 -06 -1347 Jun 03 04:55:30 31926 -41392 T 0.4146 1.0260 43.3N 133.8W 65 97 02m09s
01591 -05 -1329 Jun 14 12:00:01 31563 -41169 T 0.3360 1.0292 41.3N 122.7E 70 105 02m30s
01634 -04 -1311 Jun 24 19:10:53 31203 -40946 T 0.2617 1.0317 38.5N 17.0E 75 111 02m48s
01678 -03 -1293 Jul 06 02:26:36 30844 -40723 T 0.1903 1.0335 35.0N 90.6W 79 115 03m04s
01723 -02 -1275 Jul 16 09:51:11 30487 -40500 T 0.1255 1.0347 30.8N 158.6E 83 118 03m16s
01767 -01 -1257 Jul 27 17:23:13 30133 -40277 T 0.0662 1.0352 26.1N 45.2E 86 119 03m24s
01813 00 -1239 Aug 07 01:04:07 29780 -40054 T 0.0136 1.0354 21.0N 71.2W 89 119 03m28s
01858 01 -1221 Aug 18 08:54:26 29430 -39831 T -0.0318 1.0351 15.6N 169.4E 88 118 03m27s
01902 02 -1203 Aug 28 16:54:32 29082 -39608 T -0.0696 1.0347 10.1N 47.2E 86 117 03m24s
01947 03 -1185 Sep 09 01:04:17 28735 -39385 T -0.1000 1.0341 4.6N 77.7W 84 115 03m19s
01993 04 -1167 Sep 19 09:22:26 28391 -39162 T -0.1239 1.0336 0.9S 155.2E 83 114 03m14s
02039 05 -1149 Sep 30 17:49:36 28049 -38939 T -0.1406 1.0331 6.2S 25.9E 82 113 03m09s
02085 06 -1131 Oct 11 02:23:56 27709 -38716 T -0.1518 1.0329 11.3S 105.0W 81 112 03m05s
02131 07 -1113 Oct 22 11:04:26 27371 -38493 Tm -0.1583 1.0330 16.2S 122.9E 81 113 03m04s
02175 08 -1095 Nov 01 19:50:07 27035 -38270 T -0.1609 1.0335 20.6S 10.1W 81 114 03m04s
02218 09 -1077 Nov 13 04:39:31 26701 -38047 T -0.1610 1.0345 24.5S 143.5W 81 118 03m08s
02261 10 -1059 Nov 23 13:30:32 26370 -37824 T -0.1600 1.0360 27.8S 83.3E 81 123 03m15s
02304 11 -1041 Dec 04 22:21:18 26040 -37601 T -0.1597 1.0380 30.5S 49.3W 81 129 03m23s
02348 12 -1023 Dec 15 07:11:01 25712 -37378 T -0.1607 1.0405 32.3S 178.8E 81 137 03m34s
02390 13 -1005 Dec 26 15:57:57 25387 -37155 T -0.1647 1.0434 33.4S 48.0E 80 147 03m46s
02431 14 -0986 Jan 06 00:39:41 25063 -36932 T -0.1735 1.0467 33.7S 81.4W 80 158 03m59s
02472 15 -0968 Jan 17 09:15:55 24742 -36709 T -0.1871 1.0503 33.2S 150.5E 79 170 04m12s
02513 16 -0950 Jan 27 17:45:09 24423 -36486 T -0.2071 1.0541 32.2S 24.0E 78 183 04m25s
02554 17 -0932 Feb 08 02:07:49 24106 -36263 T -0.2330 1.0579 30.6S 101.1W 76 196 04m38s

02594 18 -0914 Feb 18 10:21:12 23790 -36040 T -0.2669 1.0617 28.9S 135.8E 74 210 04m51s
 02634 19 -0896 Feb 29 18:27:53 23477 -35817 T -0.3068 1.0652 27.0S 14.1E 72 223 05m04s
 02675 20 -0878 Mar 12 02:25:29 23166 -35594 T -0.3543 1.0685 25.2S 105.6W 69 237 05m16s
 02716 21 -0860 Mar 22 10:16:37 22857 -35371 T -0.4074 1.0712 23.7S 136.2E 66 251 05m28s
 02756 22 -0842 Apr 02 17:59:38 22551 -35148 T -0.4674 1.0733 22.8S 19.9E 62 266 05m39s
 02796 23 -0824 Apr 13 01:37:47 22246 -34925 T -0.5315 1.0747 22.5S 95.3W 58 282 05m49s
 02837 24 -0806 Apr 24 09:10:23 21943 -34702 T -0.6002 1.0752 23.1S 150.7E 53 300 05m56s
 02878 25 -0788 May 04 16:38:37 21642 -34479 T -0.6724 1.0747 24.9S 37.6E 48 322 05m59s
 02919 26 -0770 May 16 00:03:57 21344 -34256 T -0.7469 1.0732 28.1S 75.0W 41 352 05m54s
 02960 27 -0752 May 26 07:27:48 21047 -34033 T -0.8222 1.0705 33.0S 172.5E 34 398 05m40s
 03002 28 -0734 Jun 06 14:51:32 20753 -33810 T -0.8975 1.0665 40.2S 59.8E 26 491 05m12s
 03046 29 -0716 Jun 16 22:15:24 20460 -33587 T -0.9722 1.0601 52.4S 52.2W 13 874 04m21s
 03090 30 -0698 Jun 28 05:42:08 20170 -33364 P -1.0443 0.9358 65.4S 166.3W 0
 03135 31 -0680 Jul 08 13:12:07 19882 -33141 P -1.1128 0.8025 66.4S 69.6E 0
 03180 32 -0662 Jul 19 20:46:12 19596 -32918 P -1.1775 0.6774 67.4S 56.0W 0
 03225 33 -0644 Jul 30 04:25:23 19312 -32695 P -1.2375 0.5622 68.4S 176.7E 0
 03271 34 -0626 Aug 10 12:11:00 19030 -32472 P -1.2917 0.4591 69.3S 47.2E 0
 03317 35 -0608 Aug 20 20:03:46 18750 -32249 P -1.3392 0.3698 70.2S 84.6W 0
 03364 36 -0590 Sep 01 04:02:30 18472 -32026 P -1.3812 0.2916 70.9S 141.4E 0
 03412 37 -0572 Sep 11 12:09:48 18196 -31803 P -1.4156 0.2284 71.4S 4.9E 0
 03458 38 -0554 Sep 22 20:23:51 17922 -31580 P -1.4442 0.1769 71.7S 133.8W 0
 03503 39 -0536 Oct 03 04:46:01 17651 -31357 P -1.4657 0.1389 71.7S 85.3E 0
 03548 40 -0518 Oct 14 13:12:47 17381 -31134 P -1.4830 0.1090 71.5S 56.6W 0
 03593 41 -0500 Oct 24 21:46:30 17111 -30911 P -1.4943 0.0902 71.0S 160.0E 0
 03638 42 -0482 Nov 05 06:23:22 16791 -30688 P -1.5027 0.0767 70.4S 16.1E 0
 03681 43 -0464 Nov 15 15:03:43 16481 -30465 P -1.5080 0.0687 69.5S 128.0W 0
 03725 44 -0446 Nov 26 23:44:34 16179 -30242 P -1.5126 0.0618 68.5S 88.4E 0
 03769 45 -0428 Dec 07 08:26:02 15886 -30019 P -1.5165 0.0560 67.5S 54.6W 0

03811 46 -0410 Dec 18 17:04:14 15600 -29796 P -1.5225 0.0462 66.4S 163.8E 0

03853 47 -0392 Dec 29 01:38:40 15321 -29573 P -1.5311 0.0315 65.3S 23.6E 0

03895 48 -0373 Jan 09 10:07:20 15049 -29350 Pe -1.5438 0.0092 64.3S 114.7W 0

SAROS SERIES

36

Saros series 36 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

00342 -38 -1859 Jun 23 14:36:03 43093 -47724 Pb -1.5239 0.0181 67.0S 142.0E 0

00388 -37 -1841 Jul 04 22:03:49 42671 -47501 P -1.4564 0.1461 66.0S 17.6E 0

00434 -36 -1823 Jul 15 05:38:07 42252 -47278 P -1.3935 0.2659 65.0S 108.1W 0

00480 -35 -1805 Jul 26 13:20:27 41834 -47055 P -1.3363 0.3747 64.1S 124.7E 0

00527 -34 -1787 Aug 05 21:11:03 41419 -46832 P -1.2853 0.4718 63.2S 4.3W 0

00572 -33 -1769 Aug 17 05:11:34 41005 -46609 P -1.2420 0.5539 62.4S 135.5W 0

00617 -32 -1751 Aug 27 13:20:51 40594 -46386 P -1.2053 0.6232 61.8S 91.3E 0

00662 -31 -1733 Sep 07 21:38:26 40185 -46163 P -1.1752 0.6800 61.2S 43.7W 0
 00709 -30 -1715 Sep 18 06:04:44 39778 -45940 P -1.1521 0.7235 60.8S 179.2E 0
 00753 -29 -1697 Sep 29 14:39:00 39373 -45717 P -1.1353 0.7547 60.6S 40.3E 0
 00797 -28 -1679 Oct 09 23:19:31 38970 -45494 P -1.1237 0.7763 60.6S 100.2W 0
 00838 -27 -1661 Oct 21 08:05:55 38569 -45271 P -1.1170 0.7887 60.7S 117.9E 0
 00879 -26 -1643 Oct 31 16:56:07 38170 -45048 P -1.1135 0.7952 61.0S 25.0W 0
 00920 -25 -1625 Nov 12 01:49:44 37773 -44825 P -1.1128 0.7965 61.4S 168.9W 0
 00961 -24 -1607 Nov 22 10:42:35 37378 -44602 P -1.1117 0.7986 62.1S 47.2E 0
 01002 -23 -1589 Dec 03 19:36:25 36986 -44379 P -1.1114 0.7994 62.8S 97.0W 0
 01043 -22 -1571 Dec 14 04:26:39 36595 -44156 P -1.1088 0.8046 63.7S 119.3E 0
 01084 -21 -1553 Dec 25 13:14:00 36207 -43933 P -1.1037 0.8148 64.7S 23.9W 0
 01124 -20 -1534 Jan 04 21:54:23 35820 -43710 P -1.0931 0.8353 65.7S 165.8W 0
 01164 -19 -1516 Jan 16 06:30:12 35436 -43487 P -1.0790 0.8627 66.8S 53.0E 0
 01204 -18 -1498 Jan 26 14:57:28 35053 -43264 P -1.0584 0.9028 67.8S 86.5W 0
 01244 -17 -1480 Feb 06 23:17:12 34673 -43041 P -1.0317 0.9547 68.8S 135.3E 0
 01284 -16 -1462 Feb 17 07:27:51 34295 -42818 T -0.9981 1.0200 69.7S 1.2W 0
 01325 -15 -1444 Feb 28 15:30:44 33919 -42595 T -0.9581 1.0513 75.5S 169.1E 16 614 02m48s
 01366 -14 -1426 Mar 10 23:24:56 33545 -42372 T -0.9114 1.0557 68.4S 17.4E 24 451 03m20s
 01407 -13 -1408 Mar 21 07:11:08 33173 -42149 T -0.8586 1.0592 59.5S 115.4W 30 379 03m51s
 01448 -12 -1390 Apr 01 14:50:14 32803 -41926 T -0.8002 1.0619 50.4S 119.2E 37 337 04m22s
 01489 -11 -1372 Apr 11 22:23:02 32436 -41703 T -0.7369 1.0637 41.4S 2.2W 42 306 04m52s
 01531 -10 -1354 Apr 23 05:49:30 32070 -41480 T -0.6687 1.0648 32.5S 120.7W 48 283 05m19s
 01573 -09 -1336 May 03 13:12:26 31706 -41257 T -0.5980 1.0649 24.0S 122.7E 53 263 05m41s
 01616 -08 -1318 May 14 20:31:36 31345 -41034 T -0.5244 1.0641 15.8S 7.8E 58 245 05m55s
 01660 -07 -1300 May 25 03:50:16 30985 -40811 T -0.4509 1.0624 8.3S 106.3W 63 229 06m00s
 01704 -06 -1282 Jun 05 11:06:36 30628 -40588 T -0.3759 1.0598 1.2S 140.9E 68 212 05m54s
 01749 -05 -1264 Jun 15 18:25:38 30272 -40365 T -0.3036 1.0564 4.9N 28.3E 72 195 05m38s
 01795 -04 -1246 Jun 27 01:45:21 29919 -40142 T -0.2321 1.0522 10.2N 83.8W 77 178 05m13s

01840 -03 -1228 Jul 07 09:09:34 29568 -39919 T -0.1653 1.0474 14.5N 163.7E 81 160 04m41s

01885 -02 -1210 Jul 18 16:36:28 29219 -39696 Tm -0.1014 1.0419 17.6N 51.1E 84 141 04m04s

01930 -01 -1192 Jul 29 00:10:28 28872 -39473 T -0.0440 1.0360 19.4N 62.7W 88 121 03m26s

01975 00 -1174 Aug 09 07:49:30 28527 -39250 T 0.0084 1.0297 20.1N 177.7W 89 101 02m47s

02022 01 -1156 Aug 19 15:35:41 28184 -39027 T 0.0541 1.0233 19.6N 65.5E 87 80 02m09s

02068 02 -1138 Aug 30 23:28:43 27843 -38804 H3 0.0932 1.0168 18.0N 53.2W 85 58 01m32s

02113 03 -1120 Sep 10 07:29:50 27504 -38581 H 0.1245 1.0105 15.6N 174.3W 83 36 00m57s

02158 04 -1102 Sep 21 15:37:58 27168 -38358 H 0.1494 1.0042 12.5N 62.4E 81 15 00m23s

02201 05 -1084 Oct 01 23:51:56 26833 -38135 A 0.1687 0.9984 9.0N 62.6W 80 6 00m09s

02244 06 -1066 Oct 13 08:12:39 26500 -37912 A 0.1816 0.9929 5.2N 170.4E 80 25 00m41s

02287 07 -1048 Oct 23 16:38:03 26170 -37689 A 0.1898 0.9880 1.4N 42.2E 79 43 01m11s

02331 08 -1030 Nov 04 01:07:24 25841 -37466 A 0.1940 0.9836 2.4S 87.0W 79 59 01m40s

02374 09 -1012 Nov 14 09:38:15 25515 -37243 A 0.1962 0.9799 5.7S 143.6E 79 73 02m07s

02416 10 -0994 Nov 25 18:10:20 25191 -37020 A 0.1968 0.9767 8.6S 14.2E 79 84 02m32s

02456 11 -0976 Dec 06 02:40:40 24869 -36797 A 0.1981 0.9742 10.7S 114.6W 79 94 02m54s

02497 12 -0958 Dec 17 11:07:32 24549 -36574 A 0.2014 0.9723 11.8S 117.6E 78 101 03m14s

02538 13 -0940 Dec 27 19:29:39 24231 -36351 A 0.2080 0.9709 11.9S 8.9W 78 107 03m29s

02578 14 -0921 Jan 08 03:45:32 23915 -36128 A 0.2185 0.9699 10.9S 133.9W 77 111 03m40s

02618 15 -0903 Jan 18 11:52:49 23601 -35905 A 0.2356 0.9694 8.7S 103.0E 76 113 03m46s

02658 16 -0885 Jan 29 19:51:01 23289 -35682 A 0.2593 0.9691 5.3S 18.2W 75 115 03m50s

02699 17 -0867 Feb 09 03:39:24 22979 -35459 A 0.2902 0.9690 0.8S 137.5W 73 116 03m49s

02740 18 -0849 Feb 20 11:17:55 22671 -35236 A 0.3281 0.9689 4.6N 105.2E 71 118 03m46s

02780 19 -0831 Mar 02 18:44:13 22366 -35013 A 0.3752 0.9688 11.1N 9.7W 68 121 03m41s

02821 20 -0813 Mar 14 02:01:21 22062 -34790 A 0.4288 0.9684 18.2N 122.8W 64 125 03m36s

02862 21 -0795 Mar 24 09:07:14 21761 -34567 A 0.4910 0.9679 26.1N 126.5E 60 132 03m31s

02903 22 -0777 Apr 04 16:05:25 21461 -34344 A 0.5584 0.9669 34.6N 17.3E 56 143 03m25s

02944 23 -0759 Apr 14 22:53:03 21164 -34121 A 0.6336 0.9654 43.8N 89.9W 50 160 03m20s

02986 24 -0741 Apr 26 05:35:33 20869 -33898 A 0.7120 0.9634 53.5N 163.3E 44 188 03m16s

03030	25	-0723	May 06	12:10:17	20576	-33675	A	0.7960	0.9606	64.2N	56.1E	37	236	03m12s
03074	26	-0705	May 17	18:41:36	20284	-33452	A	0.8817	0.9569	75.6N	59.6W	28	336	03m08s
03118	27	-0687	May 28	01:08:50	19995	-33229	A	0.9697	0.9513	80.3N	112.4E	13	772	03m05s
03163	28	-0669	Jun 08	07:36:00	19708	-33006	P	1.0569	0.8693	67.7N	24.4W	0		
03208	29	-0651	Jun 18	14:02:56	19424	-32783	P	1.1432	0.7194	66.7N	133.3W	0		
03253	30	-0633	Jun 29	20:31:44	19141	-32560	P	1.2270	0.5745	65.7N	117.9E	0		
03299	31	-0615	Jul 10	03:04:02	18860	-32337	P	1.3070	0.4372	64.7N	8.7E	0		
03346	32	-0597	Jul 21	09:41:13	18581	-32114	P	1.3824	0.3088	63.8N	101.5W	0		
03393	33	-0579	Jul 31	16:24:28	18305	-31891	P	1.4518	0.1915	63.0N	147.1E	0		
03440	34	-0561	Aug 11	23:14:48	18030	-31668	Pe	1.5148	0.0861	62.3N	34.2E	0		

SAROS SERIES

37

Saros series 37 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL		
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.		
						GREATEST								°	km
ECLIPSE															

00508	-36	-1794	Jun 25	20:54:42	41582	-46920	Pb	1.5328	0.0144	64.4N	115.8W	0
00554	-35	-1776	Jul 06	04:07:49	41168	-46697	P	1.4717	0.1295	65.3N	124.2E	0
00599	-34	-1758	Jul 17	11:26:42	40756	-46474	P	1.4162	0.2332	66.2N	2.5E	0
00644	-33	-1740	Jul 27	18:50:24	40346	-46251	P	1.3653	0.3273	67.2N	120.9W	0
00690	-32	-1722	Aug 08	02:21:22	39938	-46028	P	1.3210	0.4084	68.2N	113.3E	0
00736	-31	-1704	Aug 18	09:58:25	39532	-45805	P	1.2823	0.4782	69.2N	14.5W	0
00780	-30	-1686	Aug 29	17:43:54	39128	-45582	P	1.2512	0.5337	70.1N	145.0W	0
00822	-29	-1668	Sep 09	01:35:56	38727	-45359	P	1.2266	0.5771	70.8N	82.3E	0
00863	-28	-1650	Sep 20	09:35:05	38327	-45136	P	1.2085	0.6083	71.3N	52.8W	0
00904	-27	-1632	Sep 30	17:40:36	37929	-44913	P	1.1964	0.6288	71.6N	170.1E	0
00945	-26	-1614	Oct 12	01:52:40	37534	-44690	P	1.1902	0.6389	71.6N	31.2E	0
00986	-25	-1596	Oct 22	10:08:45	37140	-44467	P	1.1881	0.6419	71.4N	108.6W	0
01027	-24	-1578	Nov 02	18:28:07	36749	-44244	P	1.1893	0.6394	70.9N	111.2E	0
01068	-23	-1560	Nov 13	02:48:31	36360	-44021	P	1.1921	0.6342	70.2N	28.9W	0
01108	-22	-1542	Nov 24	11:09:45	35972	-43798	P	1.1960	0.6272	69.3N	168.5W	0
01148	-21	-1524	Dec 04	19:27:19	35587	-43575	P	1.1975	0.6244	68.3N	53.5E	0
01188	-20	-1506	Dec 16	03:42:20	35204	-43352	P	1.1975	0.6243	67.3N	83.2W	0
01228	-19	-1488	Dec 26	11:50:17	34823	-43129	P	1.1921	0.6335	66.2N	142.4E	0
01268	-18	-1469	Jan 06	19:52:36	34444	-42906	P	1.1831	0.6489	65.1N	9.9E	0
01308	-17	-1451	Jan 17	03:43:57	34067	-42683	P	1.1656	0.6789	64.1N	119.4W	0
01350	-16	-1433	Jan 28	11:27:55	33692	-42460	P	1.1428	0.7181	63.2N	113.5E	0
01391	-15	-1415	Feb 07	18:59:49	33320	-42237	P	1.1105	0.7734	62.4N	10.3W	0
01432	-14	-1397	Feb 19	02:22:00	32949	-42014	P	1.0711	0.8412	61.7N	131.5W	0
01473	-13	-1379	Mar 01	09:31:59	32580	-41791	P	1.0223	0.9252	61.2N	110.6E	0
01515	-12	-1361	Mar 12	16:33:12	32214	-41568	A	0.9669	0.9403	54.3N	18.6E	14 864 04m57s
01557	-11	-1343	Mar 22	23:24:02	31849	-41345	A	0.9031	0.9437	49.4N	77.9W	25 470 04m53s
01600	-10	-1325	Apr 03	06:05:37	31487	-41122	A	0.8322	0.9462	46.8N	175.2W	33 347 04m45s
01643	-09	-1307	Apr 13	12:39:37	31127	-40899	A	0.7554	0.9480	45.2N	88.9E	41 284 04m40s

01686	-08	-1289	Apr 24	19:07:29	30769	-40676	A	0.6738	0.9494	44.3N	5.5W	47	246	04m38s
01731	-07	-1271	May 05	01:30:28	30412	-40453	A	0.5883	0.9502	43.6N	98.4W	54	223	04m41s
01776	-06	-1253	May 16	07:49:59	30058	-40230	A	0.4999	0.9505	42.6N	169.7E	60	208	04m49s
01822	-05	-1235	May 26	14:08:26	29706	-40007	A	0.4107	0.9502	41.1N	78.1E	66	199	05m03s
01867	-04	-1217	Jun 06	20:27:30	29356	-39784	A	0.3222	0.9495	39.1N	14.0W	71	196	05m24s
01912	-03	-1199	Jun 17	02:47:15	29008	-39561	A	0.2344	0.9482	36.1N	106.8W	76	196	05m51s
01957	-02	-1181	Jun 28	09:11:15	28663	-39338	A	0.1501	0.9466	32.4N	158.5E	81	199	06m23s
02003	-01	-1163	Jul 08	15:39:35	28319	-39115	A	0.0697	0.9446	27.9N	61.9E	86	205	07m00s
02049	00	-1145	Jul 19	22:15:27	27977	-38892	Am	-0.0047	0.9423	22.9N	37.5W	90	213	07m36s
02095	01	-1127	Jul 30	04:57:21	27638	-38669	A	-0.0740	0.9398	17.4N	139.2W	86	224	08m11s
02140	02	-1109	Aug 10	11:49:26	27300	-38446	A	-0.1346	0.9372	11.6N	115.9E	82	236	08m39s
02183	03	-1091	Aug 20	18:50:03	26965	-38223	A	-0.1883	0.9345	5.6N	8.3E	79	248	09m00s
02226	04	-1073	Sep 01	02:01:19	26631	-38000	A	-0.2333	0.9321	0.4S	102.3W	77	261	09m13s
02269	05	-1055	Sep 11	09:21:49	26300	-37777	A	-0.2710	0.9297	6.5S	144.7E	74	273	09m20s
02312	06	-1037	Sep 22	16:52:58	25971	-37554	A	-0.3001	0.9278	12.3S	29.0E	72	283	09m21s
02357	07	-1019	Oct 03	00:33:14	25644	-37331	A	-0.3220	0.9261	18.0S	88.8W	71	293	09m18s
02399	08	-1001	Oct 14	08:21:12	25319	-37108	A	-0.3380	0.9250	23.4S	151.8E	70	299	09m10s
02440	09	-0983	Oct 24	16:17:12	24996	-36885	A	-0.3478	0.9245	28.4S	30.9E	69	303	09m01s
02481	10	-0965	Nov 05	00:18:37	24675	-36662	A	-0.3539	0.9246	33.0S	90.6W	69	303	08m48s
02522	11	-0947	Nov 15	08:24:40	24356	-36439	A	-0.3565	0.9253	37.0S	147.5E	69	301	08m32s
02563	12	-0929	Nov 26	16:31:30	24039	-36216	A	-0.3590	0.9268	40.5S	26.3E	69	295	08m12s
02603	13	-0911	Dec 07	00:39:47	23724	-35993	A	-0.3608	0.9289	43.1S	94.3W	69	286	07m48s
02642	14	-0893	Dec 18	08:46:03	23412	-35770	A	-0.3651	0.9318	44.9S	146.3E	68	275	07m20s
02683	15	-0875	Dec 28	16:49:08	23101	-35547	A	-0.3725	0.9352	45.8S	28.2E	68	260	06m49s
02724	16	-0856	Jan 09	00:47:00	22793	-35324	A	-0.3849	0.9392	45.8S	88.5W	67	244	06m14s
02764	17	-0838	Jan 19	08:39:19	22486	-35101	A	-0.4025	0.9437	45.0S	155.9E	66	227	05m38s
02805	18	-0820	Jan 30	16:24:32	22182	-34878	A	-0.4265	0.9487	43.6S	41.8E	65	208	05m00s
02846	19	-0802	Feb 10	00:02:01	21879	-34655	A	-0.4578	0.9539	41.9S	71.0W	63	188	04m23s

02887 20 -0784 Feb 21 07:32:00 21579 -34432 A -0.4961 0.9594 40.1S 177.6E 60 168 03m47s
 02928 21 -0766 Mar 03 14:54:43 21281 -34209 A -0.5412 0.9648 38.3S 67.6E 57 149 03m14s
 02970 22 -0748 Mar 13 22:09:18 20985 -33986 A -0.5938 0.9702 37.0S 40.7W 53 131 02m42s
 03012 23 -0730 Mar 25 05:17:53 20691 -33763 A -0.6522 0.9753 36.2S 147.6W 49 114 02m13s
 03056 24 -0712 Apr 04 12:20:27 20399 -33540 A -0.7163 0.9801 36.4S 106.8E 44 98 01m47s
 03100 25 -0694 Apr 15 19:19:40 20109 -33317 A -0.7843 0.9844 37.9S 2.1E 38 87 01m23s
 03145 26 -0676 Apr 26 02:13:09 19821 -33094 A -0.8577 0.9878 41.2S 100.6W 31 81 01m04s
 03190 27 -0658 May 07 09:06:41 19536 -32871 A -0.9318 0.9900 47.2S 158.0E 21 95 00m50s
 03235 28 -0640 May 17 15:57:53 19252 -32648 P -1.0082 0.9746 62.3S 71.5E 0
 03281 29 -0622 May 28 22:51:36 18971 -32425 P -1.0834 0.8397 63.0S 42.4W 0
 03327 30 -0604 Jun 08 05:45:23 18691 -32202 P -1.1592 0.7026 63.8S 156.5W 0
 03374 31 -0586 Jun 19 12:45:10 18414 -31979 P -1.2308 0.5723 64.7S 87.6E 0
 03422 32 -0568 Jun 29 19:48:30 18138 -31756 P -1.2998 0.4458 65.7S 29.5W 0
 03468 33 -0550 Jul 11 02:58:25 17865 -31533 P -1.3642 0.3277 66.7S 148.7W 0
 03513 34 -0532 Jul 21 10:14:50 17594 -31310 P -1.4240 0.2175 67.7S 90.1E 0
 03558 35 -0514 Aug 01 17:40:32 17325 -31087 P -1.4768 0.1200 68.6S 34.0W 0
 03603 36 -0496 Aug 12 01:14:42 17043 -30864 Pe -1.5237 0.0335 69.5S 160.8W 0

SAROS SERIES

38

Saros series 38 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

00672	-35	-1729	Jun 26	22:02:21	40099	-46116	Pb	-1.5245	0.0649	66.7S	13.9E	0	
00719	-34	-1711	Jul 07	04:35:37	39692	-45893	P	-1.4482	0.1959	65.7S	96.7W	0	
00763	-33	-1693	Jul 18	11:15:43	39287	-45670	P	-1.3762	0.3192	64.7S	151.5E	0	
00807	-32	-1675	Jul 28	18:05:50	38885	-45447	P	-1.3114	0.4301	63.7S	37.5E	0	
00847	-31	-1657	Aug 09	01:05:08	38484	-45224	P	-1.2530	0.5298	62.9S	78.5W	0	
00888	-30	-1639	Aug 19	08:15:30	38086	-45001	P	-1.2026	0.6154	62.1S	163.1E	0	
00929	-29	-1621	Aug 30	15:35:02	37690	-44778	P	-1.1588	0.6897	61.5S	42.6E	0	
00970	-28	-1603	Sep 09	23:06:46	37295	-44555	P	-1.1239	0.7488	61.0S	80.8W	0	
01011	-27	-1585	Sep 21	06:47:30	36903	-44332	P	-1.0953	0.7971	60.6S	153.7E	0	
01052	-26	-1567	Oct 01	14:38:25	36513	-44109	P	-1.0743	0.8325	60.5S	25.7E	0	
01093	-25	-1549	Oct 12	22:37:05	36125	-43886	P	-1.0587	0.8589	60.5S	104.1W	0	
01133	-24	-1531	Oct 23	06:44:07	35739	-43663	P	-1.0493	0.8751	60.6S	123.9E	0	
01172	-23	-1513	Nov 03	14:55:34	35355	-43440	P	-1.0424	0.8872	61.0S	9.3W	0	
01212	-22	-1495	Nov 13	23:10:56	34973	-43217	P	-1.0379	0.8956	61.5S	143.5W	0	
01252	-21	-1477	Nov 25	07:27:52	34593	-42994	P	-1.0340	0.9033	62.2S	81.7E	0	
01292	-20	-1459	Dec 05	15:45:47	34216	-42771	P	-1.0304	0.9106	63.0S	53.5W	0	
01333	-19	-1441	Dec 17	00:00:13	33840	-42548	P	-1.0231	0.9247	63.9S	171.8E	0	
01374	-18	-1423	Dec 27	08:12:11	33467	-42325	A-	-1.0132	0.9438	64.9S	37.4E	0	
01416	-17	-1404	Jan 07	16:17:53	33095	-42102	A-	-0.9974	0.9734	66.0S	95.8W	0	
01457	-16	-1386	Jan 18	00:19:23	32726	-41879	A	-0.9773	0.9560	78.5S	128.5E	11	817 02m35s

01499 -15 -1368 Jan 29 08:11:40 32358 -41656 A -0.9492 0.9636 83.7S 42.8W 18 432 02m15s
01541 -14 -1350 Feb 08 15:58:43 31993 -41433 A -0.9158 0.9712 80.0S 139.2E 23 262 01m53s
01583 -13 -1332 Feb 19 23:36:23 31630 -41210 A -0.8738 0.9789 72.3S 1.8E 29 155 01m28s
01626 -12 -1314 Mar 02 07:08:37 31269 -40987 A -0.8263 0.9867 64.0S 122.9W 34 84 00m59s
01670 -11 -1296 Mar 12 14:32:02 30910 -40764 A -0.7705 0.9943 55.2S 117.5E 39 31 00m27s
01714 -10 -1278 Mar 23 21:51:30 30553 -40541 H -0.7102 1.0018 46.3S 0.6E 44 9 00m09s
01758 -09 -1260 Apr 03 05:04:17 30198 -40318 H -0.6432 1.0088 37.4S 114.0W 50 40 00m48s
01804 -08 -1242 Apr 14 12:13:39 29845 -40095 T -0.5722 1.0155 28.5S 132.8E 55 64 01m29s
01849 -07 -1224 Apr 24 19:19:25 29494 -39872 T -0.4970 1.0216 19.9S 21.1E 60 84 02m09s
01894 -06 -1206 May 06 02:24:27 29145 -39649 T -0.4199 1.0271 11.5S 89.9W 65 101 02m47s
01939 -05 -1188 May 16 09:29:05 28799 -39426 T -0.3414 1.0319 3.5S 159.8E 70 114 03m20s
01985 -04 -1170 May 27 16:34:16 28454 -39203 T -0.2624 1.0360 4.0N 50.0E 75 125 03m46s
02032 -03 -1152 Jun 06 23:42:32 28112 -38980 T -0.1849 1.0392 10.8N 59.9W 79 134 04m04s
02078 -02 -1134 Jun 18 06:54:15 27771 -38757 T -0.1092 1.0418 16.7N 169.7W 84 141 04m13s
02123 -01 -1116 Jun 28 14:10:36 27433 -38534 T -0.0367 1.0436 21.8N 80.1E 88 146 04m16s
02167 00 -1098 Jul 09 21:33:01 27097 -38311 T 0.0316 1.0447 25.7N 30.8W 88 149 04m12s
02210 01 -1080 Jul 20 05:02:51 26763 -38088 Tm 0.0943 1.0452 28.3N 142.9W 84 151 04m05s
02253 02 -1062 Jul 31 12:41:03 26431 -37865 T 0.1509 1.0452 29.6N 103.2E 81 152 03m56s
02296 03 -1044 Aug 10 20:26:56 26101 -37642 T 0.2018 1.0447 29.8N 12.6W 78 152 03m47s
02340 04 -1026 Aug 22 04:22:51 25773 -37419 T 0.2451 1.0439 28.7N 131.2W 76 151 03m38s
02382 05 -1008 Sep 01 12:27:39 25447 -37196 T 0.2814 1.0428 26.7N 107.5E 74 149 03m30s
02424 06 -0990 Sep 12 20:42:00 25123 -36973 T 0.3105 1.0417 24.0N 16.7W 72 146 03m24s
02465 07 -0972 Sep 23 05:04:16 24801 -36750 T 0.3335 1.0406 20.7N 143.5W 70 143 03m19s
02506 08 -0954 Oct 04 13:35:24 24481 -36527 T 0.3499 1.0398 17.1N 87.0E 69 141 03m17s
02547 09 -0936 Oct 14 22:13:31 24164 -36304 T 0.3609 1.0391 13.4N 44.5W 69 139 03m17s
02587 10 -0918 Oct 26 06:57:14 23848 -36081 T 0.3675 1.0389 9.7N 177.6W 68 139 03m21s
02627 11 -0900 Nov 05 15:46:05 23535 -35858 T 0.3702 1.0389 6.3N 48.0E 68 140 03m26s
02667 12 -0882 Nov 17 00:37:33 23223 -35635 T 0.3709 1.0396 3.2N 87.0W 68 142 03m35s

02708	13	-0864	Nov 27	09:30:43	22914	-35412	T	0.3706	1.0406	0.7N 137.7E	68	146	03m46s
02748	14	-0846	Dec 08	18:22:12	22607	-35189	T	0.3719	1.0423	0.9S 3.0E	68	152	04m01s
02788	15	-0828	Dec 19	03:13:05	22302	-34966	T	0.3738	1.0443	1.8S 131.5W	68	159	04m16s
02829	16	-0810	Dec 30	11:59:37	21999	-34743	T	0.3791	1.0467	1.6S 95.2E	68	168	04m33s
02870	17	-0791	Jan 09	20:41:34	21698	-34520	T	0.3888	1.0495	0.3S 37.1W	67	178	04m49s
02911	18	-0773	Jan 21	05:16:36	21398	-34297	T	0.4043	1.0525	2.1N 167.9W	66	190	05m04s
02953	19	-0755	Jan 31	13:45:31	21102	-34074	T	0.4250	1.0556	5.5N 62.5E	65	202	05m17s
02995	20	-0737	Feb 11	22:06:33	20807	-33851	T	0.4526	1.0587	10.0N 65.6W	63	216	05m27s
03039	21	-0719	Feb 22	06:19:28	20514	-33628	T	0.4868	1.0617	15.4N 167.9E	61	231	05m32s
03083	22	-0701	Mar 05	14:24:23	20223	-33405	T	0.5280	1.0643	21.7N 42.8E	58	246	05m33s
03128	23	-0683	Mar 15	22:21:36	19935	-33182	T	0.5758	1.0665	28.7N 80.7W	55	264	05m28s
03173	24	-0665	Mar 27	06:11:13	19648	-32959	T	0.6299	1.0681	36.4N 157.0E	51	284	05m18s
03218	25	-0647	Apr 06	13:53:47	19364	-32736	T	0.6898	1.0689	44.8N 35.8E	46	308	05m02s
03263	26	-0629	Apr 17	21:30:12	19081	-32513	T	0.7547	1.0689	53.8N 85.0W	41	341	04m42s
03309	27	-0611	Apr 28	05:01:51	18801	-32290	T	0.8234	1.0678	63.6N 152.8E	34	390	04m16s
03356	28	-0593	May 09	12:28:16	18523	-32067	T	0.8961	1.0653	73.9N 22.3E	26	487	03m45s
03403	29	-0575	May 19	19:52:45	18247	-31844	T	0.9700	1.0606	79.3N 160.2W	13	865	03m06s
03450	30	-0557	May 31	03:14:30	17973	-31621	P	1.0459	0.9331	68.4N 41.6E	0		
03495	31	-0539	Jun 10	10:37:25	17701	-31398	P	1.1203	0.7889	67.4N 81.5W	0		
03540	32	-0521	Jun 21	17:58:59	17431	-31175	P	1.1951	0.6444	66.4N 156.2E	0		
03585	33	-0503	Jul 02	01:24:31	17163	-30952	P	1.2662	0.5077	65.4N 33.3E	0		
03630	34	-0485	Jul 13	08:51:40	16849	-30729	P	1.3356	0.3754	64.5N 89.8W	0		
03673	35	-0467	Jul 23	16:24:32	16537	-30506	P	1.3997	0.2544	63.6N 146.1E	0		
03717	36	-0449	Aug 04	00:01:15	16234	-30283	P	1.4601	0.1417	62.8N 21.2E	0		
03761	37	-0431	Aug 14	07:45:52	15939	-30060	Pe	1.5136	0.0432	62.1N 105.3W	0		

SAROS SERIES

39

Saros series 39 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
											GREATEST	°	km	
														ECLIPSE

00700	-37	-1718	May 26	11:58:02	39852	-45981	Pb	1.5157	0.0319	62.2N	37.2E	0	
00745	-36	-1700	Jun 05	19:15:14	39447	-45758	P	1.4394	0.1769	62.9N	83.1W	0	
00789	-35	-1682	Jun 17	02:36:40	39043	-45535	P	1.3656	0.3177	63.7N	155.4E	0	
00831	-34	-1664	Jun 27	10:01:58	38642	-45312	P	1.2944	0.4538	64.6N	32.7E	0	
00872	-33	-1646	Jul 08	17:34:05	38243	-45089	P	1.2284	0.5802	65.5N	92.0W	0	
00913	-32	-1628	Jul 19	01:13:01	37846	-44866	P	1.1677	0.6962	66.5N	141.1E	0	
00954	-31	-1610	Jul 30	08:59:13	37451	-44643	P	1.1127	0.8009	67.6N	12.0E	0	
00995	-30	-1592	Aug 09	16:53:53	37058	-44420	P	1.0643	0.8927	68.6N	119.8W	0	
01036	-29	-1574	Aug 21	00:57:11	36667	-44197	P	1.0228	0.9711	69.5N	105.6E	0	
01077	-28	-1556	Aug 31	09:09:55	36278	-43974	Tn	0.9891	1.0404	74.7N	51.1W	7	- 02m05s
01117	-27	-1538	Sep 11	17:29:52	35891	-43751	T	0.9613	1.0409	73.4N	137.0E	15	514 02m18s
01157	-26	-1520	Sep 22	01:59:24	35506	-43528	T	0.9413	1.0400	68.3N	11.9W	19	403 02m24s
01197	-25	-1502	Oct 03	10:35:41	35124	-43305	T	0.9268	1.0389	63.1N	153.6W	22	350 02m28s
01237	-24	-1484	Oct 13	19:19:27	34743	-43082	T	0.9184	1.0376	58.6N	66.5E	23	320 02m30s

01277	-23	-1466	Oct 25	04:07:02	34365	-42859	T	0.9133	1.0365	54.7N	73.0W	24	302	02m33s
01317	-22	-1448	Nov 04	12:59:34	33988	-42636	T	0.9124	1.0357	51.5N	147.1E	24	294	02m36s
01358	-21	-1430	Nov 15	21:53:14	33614	-42413	T	0.9127	1.0353	48.9N	7.2E	24	292	02m39s
01399	-20	-1412	Nov 26	06:47:37	33241	-42190	T	0.9137	1.0353	46.7N	132.8W	24	294	02m44s
01440	-19	-1394	Dec 07	15:40:19	32871	-41967	T	0.9135	1.0359	44.8N	87.7E	24	299	02m51s
01482	-18	-1376	Dec 18	00:30:56	32503	-41744	T	0.9116	1.0369	43.1N	51.2W	24	304	02m59s
01524	-17	-1358	Dec 29	09:15:55	32137	-41521	T	0.9054	1.0386	41.3N	171.4E	25	307	03m09s
01566	-16	-1339	Jan 08	17:55:37	31773	-41298	T	0.8952	1.0406	39.5N	35.8E	26	306	03m20s
01609	-15	-1321	Jan 20	02:27:58	31411	-41075	T	0.8791	1.0432	37.6N	97.5W	28	301	03m32s
01653	-14	-1303	Jan 30	10:53:53	31051	-40852	T	0.8578	1.0459	36.0N	131.5E	31	294	03m44s
01696	-13	-1285	Feb 10	19:09:44	30693	-40629	T	0.8283	1.0488	34.3N	3.7E	34	285	03m56s
01741	-12	-1267	Feb 21	03:18:32	30338	-40406	T	0.7933	1.0515	33.2N	121.6W	37	275	04m05s
01786	-11	-1249	Mar 04	11:17:32	29984	-40183	T	0.7504	1.0542	32.3N	116.2E	41	265	04m14s
01831	-10	-1231	Mar 14	19:09:48	29632	-39960	T	0.7022	1.0564	32.0N	3.7W	45	256	04m20s
01876	-09	-1213	Mar 26	02:51:53	29283	-39737	T	0.6458	1.0582	32.0N	120.3W	50	246	04m26s
01921	-08	-1195	Apr 05	10:28:46	28935	-39514	T	0.5854	1.0595	32.3N	124.9E	54	237	04m30s
01966	-07	-1177	Apr 16	17:57:28	28590	-39291	T	0.5187	1.0599	32.7N	12.7E	59	228	04m33s
02013	-06	-1159	Apr 27	01:22:00	28247	-39068	T	0.4491	1.0598	33.1N	97.9W	63	218	04m35s
02059	-05	-1141	May 08	08:40:41	27905	-38845	T	0.3750	1.0587	33.2N	153.4E	68	207	04m36s
02105	-04	-1123	May 18	15:57:41	27566	-38622	T	0.3003	1.0569	32.9N	45.3E	72	196	04m35s
02150	-03	-1105	May 29	23:12:07	27229	-38399	T	0.2242	1.0541	31.9N	62.0W	77	183	04m32s
02193	-02	-1087	Jun 09	06:25:42	26894	-38176	T	0.1481	1.0506	30.1N	169.3W	81	170	04m26s
02236	-01	-1069	Jun 20	13:40:07	26561	-37953	Tm	0.0736	1.0463	27.5N	82.8E	86	155	04m16s
02279	00	-1051	Jun 30	20:56:39	26231	-37730	T	0.0020	1.0414	24.0N	26.1W	90	139	03m59s
02322	01	-1033	Jul 12	04:16:54	25902	-37507	T	-0.0660	1.0358	19.9N	136.7W	86	121	03m36s
02365	02	-1015	Jul 22	11:40:52	25575	-37284	T	-0.1298	1.0298	15.2N	111.1E	83	102	03m06s
02407	03	-0997	Aug 02	19:11:20	25250	-37061	T	-0.1874	1.0234	10.0N	3.3W	79	81	02m29s
02448	04	-0979	Aug 13	02:47:53	24928	-36838	H3	-0.2387	1.0168	4.5N	119.8W	76	59	01m48s

02489 05 -0961 Aug 24 10:31:09 24607 -36615 H -0.2836 1.0100 1.2S 121.7E 74 36 01m05s

02530 06 -0943 Sep 03 18:21:30 24289 -36392 H -0.3218 1.0033 7.0S 1.2E 71 12 00m21s

02571 07 -0925 Sep 15 02:19:48 23972 -36169 A -0.3526 0.9968 12.8S 121.5W 69 12 00m21s

02611 08 -0907 Sep 25 10:25:04 23658 -35946 A -0.3764 0.9905 18.4S 114.3E 68 36 00m59s

02651 09 -0889 Oct 06 18:36:18 23346 -35723 A -0.3944 0.9846 23.9S 11.2W 67 59 01m34s

02692 10 -0871 Oct 17 02:53:28 23036 -35500 A -0.4066 0.9793 29.1S 137.7W 66 80 02m05s

02733 11 -0853 Oct 28 11:15:54 22728 -35277 A -0.4137 0.9744 34.0S 95.2E 65 100 02m32s

02772 12 -0835 Nov 07 19:40:57 22422 -35054 A -0.4178 0.9703 38.4S 31.8W 65 117 02m54s

02813 13 -0817 Nov 19 04:07:45 22118 -34831 A -0.4197 0.9667 42.2S 158.2W 65 132 03m14s

02854 14 -0799 Nov 29 12:34:02 21816 -34608 A -0.4214 0.9638 45.4S 76.5E 65 144 03m29s

02895 15 -0781 Dec 10 20:59:29 21516 -34385 A -0.4230 0.9615 47.7S 47.5W 65 154 03m41s

02936 16 -0763 Dec 21 05:19:37 21219 -34162 A -0.4284 0.9598 49.1S 169.5W 64 162 03m49s

02978 17 -0744 Jan 01 13:36:07 20923 -33939 A -0.4362 0.9586 49.6S 69.8E 64 167 03m54s

03021 18 -0726 Jan 11 21:44:28 20629 -33716 A -0.4504 0.9579 49.1S 48.9W 63 172 03m56s

03066 19 -0708 Jan 23 05:45:46 20338 -33493 A -0.4695 0.9575 48.0S 166.2W 62 175 03m56s

03110 20 -0690 Feb 02 13:36:01 20048 -33270 A -0.4972 0.9573 46.4S 78.7E 60 178 03m55s

03155 21 -0672 Feb 13 21:18:09 19761 -33047 A -0.5308 0.9573 44.5S 35.1W 58 182 03m54s

03200 22 -0654 Feb 24 04:48:41 19476 -32824 A -0.5735 0.9572 42.7S 146.4W 55 188 03m53s

03245 23 -0636 Mar 06 12:08:54 19193 -32601 A -0.6238 0.9571 41.2S 104.5E 51 196 03m54s

03291 24 -0618 Mar 17 19:18:06 18911 -32378 A -0.6821 0.9567 40.5S 2.0W 47 211 03m57s

03338 25 -0600 Mar 28 02:18:16 18632 -32155 A -0.7469 0.9559 40.6S 106.2W 41 235 04m02s

03385 26 -0582 Apr 08 09:08:42 18355 -31932 A -0.8188 0.9546 42.3S 152.5E 35 280 04m09s

03432 27 -0564 Apr 18 15:50:40 18080 -31709 A -0.8967 0.9523 46.2S 54.7E 26 382 04m17s

03478 28 -0546 Apr 29 22:26:02 17808 -31486 A -0.9788 0.9481 55.2S 34.6W 11 954 04m20s

03523 29 -0528 May 10 04:56:01 17537 -31263 P -1.0641 0.8568 61.8S 124.6W 0

03568 30 -0510 May 21 11:21:36 17268 -31040 P -1.1519 0.7048 62.5S 128.8E 0

03613 31 -0492 May 31 17:45:10 16975 -30817 P -1.2404 0.5518 63.3S 22.4E 0

03657 32 -0474 Jun 12 00:08:10 16659 -30594 P -1.3282 0.4005 64.1S 84.2W 0

03701 33 -0456 Jun 22 06:32:48 16353 -30371 P -1.4136 0.2541 65.1S 168.5E 0

03744 34 -0438 Jul 03 12:58:27 16055 -30148 Pe -1.4974 0.1112 66.1S 60.6E 0

SAROS SERIES

40

Saros series 40 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
00856	-36	-1653 May 28	18:12:41	38400	-45177	Pb	-1.5359	0.0073	69.1S	94.5E	0		
00897	-35	-1635 Jun 08	01:14:28	38002	-44954	P	-1.4667	0.1372	68.2S	24.5W	0		
00938	-34	-1617 Jun 19	08:17:47	37606	-44731	P	-1.3992	0.2632	67.3S	143.3W	0		
00979	-33	-1599 Jun 29	15:23:21	37213	-44508	P	-1.3341	0.3833	66.3S	97.8E	0		
01020	-32	-1581 Jul 10	22:32:03	36821	-44285	P	-1.2721	0.4967	65.3S	21.5W	0		
01061	-31	-1563 Jul 21	05:46:11	36431	-44062	P	-1.2151	0.5997	64.4S	141.7W	0		
01101	-30	-1545 Aug 01	13:05:55	36043	-43839	P	-1.1630	0.6926	63.5S	97.1E	0		
01141	-29	-1527 Aug 11	20:32:13	35658	-43616	P	-1.1170	0.7734	62.6S	25.5W	0		

01181 -28 -1509 Aug 23 04:05:42 35274 -43393 P -1.0774 0.8417 61.9S 149.6W 0

01221 -27 -1491 Sep 02 11:46:56 34893 -43170 P -1.0446 0.8972 61.4S 84.5E 0

01261 -26 -1473 Sep 13 19:36:05 34514 -42947 P -1.0190 0.9395 60.9S 43.1W 0

01301 -25 -1455 Sep 24 03:31:13 34136 -42724 A- -0.9989 0.9719 60.6S 172.2W 0

01342 -24 -1437 Oct 05 11:34:09 33761 -42501 As -0.9860 0.9460 59.4S 74.1E 9 - 03m49s

01383 -23 -1419 Oct 15 19:41:51 33388 -42278 A -0.9779 0.9420 60.4S 52.2W 11 1058 04m02s

01424 -22 -1401 Oct 27 03:54:45 33017 -42055 A -0.9744 0.9382 62.3S 177.1E 12 1052 04m13s

01465 -21 -1383 Nov 06 12:08:33 32648 -41832 A -0.9724 0.9348 64.7S 45.0E 13 1076 04m20s

01507 -20 -1365 Nov 17 20:25:06 32281 -41609 A -0.9735 0.9320 67.2S 90.3W 13 1159 04m25s

01549 -19 -1347 Nov 28 04:39:56 31916 -41386 A -0.9739 0.9298 69.8S 134.2E 12 1219 04m28s

01592 -18 -1329 Dec 09 12:52:56 31554 -41163 A -0.9735 0.9284 72.4S 1.7W 13 1243 04m30s

01635 -17 -1311 Dec 19 21:00:36 31193 -40940 A -0.9696 0.9277 75.6S 135.7W 13 1169 04m33s

01679 -16 -1293 Dec 31 05:03:18 30834 -40717 A -0.9620 0.9279 79.5S 90.0E 15 1036 04m35s

01724 -15 -1274 Jan 10 12:58:00 30478 -40494 A -0.9485 0.9288 84.2S 50.3W 18 873 04m39s

01768 -14 -1256 Jan 21 20:44:11 30123 -40271 A -0.9287 0.9302 87.0S 106.6E 21 722 04m45s

01814 -13 -1238 Feb 01 04:20:38 29771 -40048 A -0.9016 0.9321 81.7S 64.8W 25 596 04m52s

01859 -12 -1220 Feb 12 11:47:38 29420 -39825 A -0.8674 0.9343 74.4S 167.9E 29 497 05m01s

01903 -11 -1202 Feb 22 19:02:52 29072 -39602 A -0.8240 0.9367 66.4S 49.4E 34 417 05m12s

01948 -10 -1184 Mar 05 02:08:32 28726 -39379 A -0.7730 0.9391 58.0S 64.7W 39 355 05m26s

01994 -09 -1166 Mar 16 09:03:26 28382 -39156 A -0.7137 0.9415 49.2S 175.3W 44 307 05m40s

02040 -08 -1148 Mar 26 15:50:19 28040 -38933 A -0.6482 0.9436 40.3S 76.8E 49 271 05m55s

02086 -07 -1130 Apr 06 22:26:34 27700 -38710 A -0.5743 0.9456 31.2S 28.1W 55 242 06m10s

02132 -06 -1112 Apr 17 04:57:35 27362 -38487 A -0.4964 0.9472 22.2S 131.1W 60 222 06m25s

02176 -05 -1094 Apr 28 11:21:18 27026 -38264 A -0.4123 0.9484 13.2S 128.0E 66 207 06m37s

02219 -04 -1076 May 08 17:42:37 26692 -38041 A -0.3266 0.9493 4.6S 28.3E 71 196 06m46s

02262 -03 -1058 May 19 23:59:17 26361 -37818 A -0.2370 0.9496 3.8N 69.6W 76 190 06m52s

02305 -02 -1040 May 30 06:17:20 26031 -37595 A -0.1485 0.9495 11.5N 167.1W 82 187 06m53s

02349 -01 -1022 Jun 10 12:34:40 25704 -37372 A -0.0591 0.9489 18.7N 96.5E 87 188 06m50s

02391	00	-1004	Jun 20	18:55:29	25378	-37149	Am	0.0276	0.9479	25.0N	0.1E	88	192	06m43s
02432	01	-0986	Jul 02	01:19:51	25055	-36926	A	0.1115	0.9464	30.4N	96.0W	83	199	06m35s
02473	02	-0968	Jul 12	07:51:00	24733	-36703	A	0.1901	0.9447	34.5N	167.1E	79	208	06m28s
02514	03	-0950	Jul 23	14:29:18	24414	-36480	A	0.2631	0.9427	37.2N	69.2E	75	220	06m24s
02555	04	-0932	Aug 02	21:15:20	24097	-36257	A	0.3301	0.9405	38.7N	30.2W	71	233	06m22s
02595	05	-0914	Aug 14	04:11:20	23782	-36034	A	0.3892	0.9382	38.9N	132.3W	67	248	06m25s
02635	06	-0896	Aug 24	11:16:27	23469	-35811	A	0.4412	0.9360	37.9N	122.9E	64	264	06m32s
02676	07	-0878	Sep 04	18:32:13	23158	-35588	A	0.4845	0.9338	36.1N	14.5E	61	279	06m42s
02717	08	-0860	Sep 15	01:57:24	22849	-35365	A	0.5206	0.9319	33.7N	97.1W	58	293	06m55s
02757	09	-0842	Sep 26	09:33:26	22542	-35142	A	0.5482	0.9303	30.8N	147.7E	57	306	07m11s
02797	10	-0824	Oct 06	17:18:03	22238	-34919	A	0.5692	0.9292	27.8N	29.8E	55	316	07m29s
02838	11	-0806	Oct 18	01:11:04	21935	-34696	A	0.5837	0.9286	24.7N	90.8W	54	322	07m47s
02879	12	-0788	Oct 28	09:11:01	21634	-34473	A	0.5931	0.9286	21.7N	146.5E	53	325	08m04s
02920	13	-0770	Nov 08	17:17:02	21336	-34250	A	0.5976	0.9292	18.9N	22.1E	53	324	08m19s
02961	14	-0752	Nov 19	01:26:10	21039	-34027	A	0.6005	0.9305	16.6N	103.1W	53	320	08m28s
03003	15	-0734	Nov 30	09:37:18	20745	-33804	A	0.6024	0.9324	14.9N	131.2E	53	312	08m30s
03047	16	-0716	Dec 10	17:48:27	20453	-33581	A	0.6048	0.9351	13.8N	5.5E	53	301	08m22s
03092	17	-0698	Dec 22	01:59:06	20162	-33358	A	0.6081	0.9384	13.6N	120.0W	52	287	08m03s
03137	18	-0679	Jan 01	10:04:53	19874	-33135	A	0.6160	0.9423	14.4N	115.7E	52	271	07m32s
03182	19	-0661	Jan 12	18:07:10	19588	-32912	A	0.6274	0.9466	16.1N	7.9W	51	252	06m51s
03227	20	-0643	Jan 23	02:02:02	19304	-32689	A	0.6456	0.9515	19.1N	129.9W	50	232	06m02s
03273	21	-0625	Feb 03	09:52:04	19022	-32466	A	0.6684	0.9567	23.0N	108.9E	48	211	05m09s
03319	22	-0607	Feb 13	17:32:25	18742	-32243	A	0.6995	0.9620	28.1N	10.4W	45	191	04m14s
03366	23	-0589	Feb 25	01:07:26	18464	-32020	A	0.7358	0.9675	34.1N	129.0W	42	171	03m23s
03414	24	-0571	Mar 07	08:33:18	18189	-31797	A	0.7802	0.9728	41.2N	113.7E	38	154	02m36s
03460	25	-0553	Mar 18	15:53:22	17915	-31574	A	0.8300	0.9778	49.2N	3.8W	34	140	01m56s
03505	26	-0535	Mar 28	23:05:20	17644	-31351	A	0.8873	0.9823	58.4N	122.9W	27	136	01m23s
03550	27	-0517	Apr 09	06:13:34	17374	-31128	A	0.9484	0.9858	68.4N	108.2E	18	161	00m59s

03595 28 -0499 Apr 19 13:16:39 17102 -30905 P 1.0144 0.9617 71.2N 65.8W 0
03640 29 -0481 Apr 30 20:16:46 16783 -30682 P 1.0836 0.8385 70.6N 174.6E 0
03683 30 -0463 May 11 03:14:59 16473 -30459 P 1.1553 0.7094 69.9N 56.0E 0
03727 31 -0445 May 22 10:13:27 16171 -30236 P 1.2277 0.5777 69.0N 62.0W 0
03771 32 -0427 Jun 01 17:12:55 15878 -30013 P 1.2999 0.4453 68.1N 179.7W 0
03813 33 -0409 Jun 13 00:14:15 15592 -29790 P 1.3713 0.3136 67.1N 62.7E 0
03855 34 -0391 Jun 23 07:19:55 15314 -29567 P 1.4400 0.1861 66.1N 55.5W 0
03897 35 -0373 Jul 04 14:30:41 15042 -29344 Pe 1.5055 0.0643 65.2N 174.6W 0

SAROS SERIES

41

Saros series 41 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01004 -34 -1588 May 28 19:00:17 36975 -44373 Pb 1.5121 0.0847 62.4N 83.4W 0
01045 -33 -1570 Jun 09 01:21:29 36585 -44150 P 1.4258 0.2328 63.1N 170.4E 0

01086 -32 -1552 Jun 19 07:45:20 36196 -43927 P 1.3403 0.3798 63.9N 63.4E 0

01126 -31 -1534 Jun 30 14:17:09 35810 -43704 P 1.2601 0.5177 64.9N 46.0W 0

01165 -30 -1516 Jul 10 20:55:20 35425 -43481 P 1.1840 0.6484 65.9N 157.2W 0

01205 -29 -1498 Jul 22 03:42:06 35043 -43258 P 1.1138 0.7687 66.9N 88.9E 0

01245 -28 -1480 Aug 01 10:37:55 34663 -43035 P 1.0501 0.8778 67.9N 27.7W 0

01285 -27 -1462 Aug 12 17:44:37 34285 -42812 An 0.9943 0.9375 72.8N 153.1W 4 - 03m45s

01326 -26 -1444 Aug 23 01:01:34 33909 -42589 A 0.9460 0.9403 78.4N 24.5E 18 701 04m06s

01367 -25 -1426 Sep 03 08:29:04 33535 -42366 A 0.9055 0.9410 71.8N 120.0W 25 519 04m24s

01408 -24 -1408 Sep 13 16:07:15 33163 -42143 A 0.8732 0.9414 64.7N 112.0E 29 445 04m41s

01449 -23 -1390 Sep 24 23:55:59 32793 -41920 A 0.8486 0.9417 58.2N 13.5W 32 405 04m58s

01490 -22 -1372 Oct 05 07:52:53 32426 -41697 A 0.8301 0.9423 52.4N 139.3W 34 380 05m12s

01532 -21 -1354 Oct 16 15:58:40 32060 -41474 A 0.8181 0.9430 47.4N 93.6E 35 362 05m24s

01574 -20 -1336 Oct 27 00:10:24 31696 -41251 A 0.8100 0.9442 42.9N 34.5W 36 347 05m33s

01617 -19 -1318 Nov 07 08:28:14 31335 -41028 A 0.8063 0.9459 39.2N 163.9W 36 334 05m36s

01661 -18 -1300 Nov 17 16:47:32 30976 -40805 A 0.8029 0.9482 36.0N 66.4E 36 317 05m33s

01705 -17 -1282 Nov 29 01:10:19 30618 -40582 A 0.8014 0.9512 33.4N 64.0W 36 299 05m22s

01750 -16 -1264 Dec 09 09:31:31 30263 -40359 A 0.7974 0.9548 31.1N 166.0E 37 274 05m03s

01796 -15 -1246 Dec 20 17:51:39 29910 -40136 A 0.7919 0.9591 29.3N 36.4E 37 244 04m36s

01841 -14 -1228 Dec 31 02:06:33 29558 -39913 A 0.7810 0.9641 27.5N 91.7W 38 208 04m02s

01886 -13 -1209 Jan 11 10:17:51 29209 -39690 A 0.7663 0.9697 26.1N 141.3E 40 169 03m21s

01931 -12 -1191 Jan 21 18:22:28 28862 -39467 A 0.7449 0.9758 24.8N 16.3E 42 128 02m36s

01976 -11 -1173 Feb 02 02:20:12 28517 -39244 A 0.7170 0.9825 23.7N 106.5W 44 88 01m50s

02023 -10 -1155 Feb 12 10:10:21 28175 -39021 A 0.6817 0.9893 22.9N 133.1E 47 50 01m04s

02069 -09 -1137 Feb 23 17:53:24 27834 -38798 A 0.6398 0.9965 22.5N 15.0E 50 16 00m20s

02114 -08 -1119 Mar 06 01:28:48 27495 -38575 H 0.5905 1.0037 22.4N 100.6W 54 16 00m21s

02159 -07 -1101 Mar 17 08:57:26 27159 -38352 H 0.5345 1.0108 22.5N 145.9E 58 43 00m59s

02202 -06 -1083 Mar 27 16:20:02 26824 -38129 T 0.4725 1.0177 23.0N 34.4E 62 68 01m33s

02245 -05 -1065 Apr 07 23:38:13 26491 -37906 T 0.4057 1.0242 23.5N 75.6W 66 89 02m06s

02288 -04 -1047 Apr 18 06:51:18 26161 -37683 T 0.3337 1.0303 24.0N 176.1E 70 108 02m36s
02332 -03 -1029 Apr 29 14:02:41 25833 -37460 T 0.2592 1.0357 24.2N 68.6E 75 124 03m04s
02375 -02 -1011 May 09 21:12:05 25506 -37237 T 0.1822 1.0406 24.1N 38.3W 79 138 03m32s
02417 -01 -0993 May 21 04:22:36 25182 -37014 T 0.1049 1.0447 23.3N 145.4W 84 150 03m58s
02457 00 -0975 May 31 11:32:22 24860 -36791 T 0.0261 1.0480 21.8N 107.6E 88 160 04m22s
02498 01 -0957 Jun 11 18:46:35 24540 -36568 T -0.0498 1.0506 19.6N 0.8W 87 168 04m44s
02539 02 -0939 Jun 22 02:03:20 24222 -36345 Tm -0.1240 1.0523 16.5N 110.3W 83 175 05m02s
02579 03 -0921 Jul 03 09:26:14 23906 -36122 T -0.1939 1.0534 12.8N 138.1E 79 180 05m15s
02619 04 -0903 Jul 13 16:53:45 23592 -35899 T -0.2605 1.0537 8.3N 24.8E 75 184 05m21s
02659 05 -0885 Jul 25 00:29:59 23280 -35676 T -0.3204 1.0535 3.4N 91.4W 71 187 05m20s
02700 06 -0867 Aug 04 08:13:12 22971 -35453 T -0.3746 1.0526 1.8S 150.2E 68 188 05m11s
02741 07 -0849 Aug 15 16:04:24 22663 -35230 T -0.4226 1.0515 7.4S 29.4E 65 188 04m58s
02781 08 -0831 Aug 26 00:04:29 22358 -35007 T -0.4635 1.0499 13.1S 94.0W 62 186 04m40s
02822 09 -0813 Sep 06 08:13:35 22054 -34784 T -0.4973 1.0482 18.7S 140.3E 60 184 04m22s
02863 10 -0795 Sep 16 16:31:48 21753 -34561 T -0.5238 1.0465 24.4S 12.2E 58 181 04m03s
02904 11 -0777 Sep 28 00:57:17 21453 -34338 T -0.5447 1.0449 29.9S 117.4W 57 177 03m46s
02945 12 -0759 Oct 08 09:31:44 21156 -34115 T -0.5584 1.0434 35.2S 111.1E 56 174 03m31s
02987 13 -0741 Oct 19 18:12:23 20861 -33892 T -0.5676 1.0423 40.3S 21.3W 55 171 03m19s
03031 14 -0723 Oct 30 02:58:53 20568 -33669 T -0.5722 1.0416 45.0S 154.2W 55 169 03m10s
03075 15 -0705 Nov 10 11:48:56 20277 -33446 T -0.5744 1.0413 49.4S 73.1E 55 169 03m04s
03119 16 -0687 Nov 20 20:42:24 19988 -33223 T -0.5741 1.0414 53.1S 58.9W 55 170 03m01s
03164 17 -0669 Dec 02 05:36:05 19701 -33000 T -0.5739 1.0421 56.2S 170.7E 55 172 03m01s
03209 18 -0651 Dec 12 14:29:02 19416 -32777 T -0.5747 1.0432 58.2S 41.9E 55 177 03m03s
03254 19 -0633 Dec 23 23:19:32 19133 -32554 T -0.5777 1.0448 59.1S 85.2W 54 184 03m08s
03301 20 -0614 Jan 03 08:06:45 18852 -32331 T -0.5839 1.0467 58.9S 148.7E 54 192 03m13s
03348 21 -0596 Jan 14 16:47:19 18574 -32108 T -0.5957 1.0489 57.7S 23.7E 53 202 03m21s
03395 22 -0578 Jan 25 01:22:11 18297 -31885 T -0.6123 1.0512 55.8S 100.9W 52 214 03m28s
03442 23 -0560 Feb 05 09:48:53 18023 -31662 T -0.6358 1.0536 53.5S 135.4E 50 229 03m37s

03487 24 -0542 Feb 15 18:09:16 17750 -31439 T -0.6648 1.0558 51.0S 12.2E 48 245 03m45s
 03532 25 -0524 Feb 27 02:19:09 17480 -31216 T -0.7025 1.0578 48.9S 108.9W 45 265 03m52s
 03577 26 -0506 Mar 09 10:22:57 17212 -30993 T -0.7454 1.0594 47.3S 130.9E 42 288 03m59s
 03622 27 -0488 Mar 19 18:16:39 16908 -30770 T -0.7965 1.0603 46.6S 13.2E 37 321 04m03s
 03666 28 -0470 Mar 31 02:04:46 16594 -30547 T -0.8523 1.0604 47.1S 102.9W 31 372 04m03s
 03710 29 -0452 Apr 10 09:43:44 16289 -30324 T -0.9156 1.0592 49.7S 145.0E 23 476 03m55s
 03753 30 -0434 Apr 21 17:18:50 15993 -30101 T -0.9821 1.0556 56.5S 40.8E 10 1017 03m29s
 03796 31 -0416 May 02 00:47:10 15704 -29878 P -1.0535 0.9180 61.6S 64.2W 0
 03838 32 -0398 May 13 08:12:32 15423 -29655 P -1.1272 0.7758 62.1S 174.3E 0
 03880 33 -0380 May 23 15:33:57 15148 -29432 P -1.2034 0.6288 62.8S 53.6E 0
 03921 34 -0362 Jun 03 22:54:45 14881 -29209 P -1.2794 0.4826 63.6S 67.1W 0
 03960 35 -0344 Jun 14 06:14:22 14619 -28986 P -1.3557 0.3365 64.5S 172.1E 0
 04000 36 -0326 Jun 25 13:34:41 14364 -28763 P -1.4306 0.1943 65.5S 51.0E 0
 04041 37 -0308 Jul 05 20:57:08 14115 -28540 Pe -1.5027 0.0586 66.5S 71.1W 0

SAROS SERIES

42

Saros series 42 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										

01029	-37	-1577	Apr 28	09:28:38	36738	-44238	Pb	-1.5198	0.0233	71.1S	106.8W	0	
01070	-36	-1559	May 08	16:46:41	36349	-44015	P	-1.4450	0.1650	70.5S	128.8E	0	
01110	-35	-1541	May 20	00:03:34	35962	-43792	P	-1.3684	0.3112	69.8S	5.2E	0	
01150	-34	-1523	May 30	07:22:51	35577	-43569	P	-1.2928	0.4563	68.9S	118.5W	0	
01190	-33	-1505	Jun 10	14:43:50	35194	-43346	P	-1.2178	0.6009	68.0S	117.9E	0	
01230	-32	-1487	Jun 20	22:09:54	34813	-43123	P	-1.1463	0.7387	67.0S	6.4W	0	
01270	-31	-1469	Jul 02	05:39:07	34434	-42900	P	-1.0770	0.8722	66.0S	131.0W	0	
01310	-30	-1451	Jul 12	13:15:57	34057	-42677	P	-1.0135	0.9944	65.0S	102.9E	0	
01351	-29	-1433	Jul 23	20:58:00	33682	-42454	T	-0.9538	1.0553	48.3S	12.4W	17	615 04m08s
01392	-28	-1415	Aug 03	04:48:22	33310	-42231	T	-0.9008	1.0560	40.7S	133.0W	25	423 04m22s
01433	-27	-1397	Aug 14	12:45:34	32939	-42008	T	-0.8534	1.0554	36.4S	104.7E	31	346 04m23s
01474	-26	-1379	Aug 24	20:52:28	32571	-41785	T	-0.8141	1.0540	34.4S	20.1W	35	302 04m14s
01516	-25	-1361	Sep 05	05:06:58	32204	-41562	T	-0.7810	1.0521	33.9S	146.8W	38	270 04m01s
01558	-24	-1343	Sep 15	13:29:48	31840	-41339	T	-0.7547	1.0500	34.9S	84.5E	41	247 03m46s
01601	-23	-1325	Sep 26	22:00:17	31477	-41116	T	-0.7348	1.0478	37.0S	46.2W	42	229 03m30s
01644	-22	-1307	Oct 07	06:38:34	31117	-40893	T	-0.7216	1.0456	40.0S	178.9W	44	215 03m16s
01687	-21	-1289	Oct 18	15:22:14	30759	-40670	T	-0.7127	1.0436	43.6S	47.3E	44	204 03m03s
01732	-20	-1271	Oct 29	00:11:01	30403	-40447	T	-0.7083	1.0418	47.8S	87.6W	45	196 02m51s
01777	-19	-1253	Nov 09	09:02:45	30049	-40224	T	-0.7064	1.0405	52.2S	137.4E	45	190 02m43s
01823	-18	-1235	Nov 19	17:57:11	29697	-40001	T	-0.7069	1.0396	56.7S	2.8E	45	187 02m36s
01868	-17	-1217	Dec 01	02:50:17	29347	-39778	T	-0.7066	1.0392	60.9S	129.8W	45	186 02m33s
01913	-16	-1199	Dec 11	11:43:12	28999	-39555	T	-0.7065	1.0393	64.6S	100.1E	45	186 02m32s
01958	-15	-1181	Dec 22	20:31:34	28653	-39332	T	-0.7031	1.0399	67.1S	25.7W	45	189 02m34s

02004 -14 -1162 Jan 02 05:16:03 28310 -39109 T -0.6968 1.0409 67.9S 148.2W 46 192 02m40s
 02050 -13 -1144 Jan 13 13:52:43 27968 -38886 T -0.6845 1.0423 66.7S 91.4E 47 195 02m48s
 02096 -12 -1126 Jan 23 22:23:45 27629 -38663 T -0.6681 1.0440 63.6S 30.0W 48 198 02m58s
 02141 -11 -1108 Feb 04 06:45:48 27291 -38440 T -0.6450 1.0458 59.0S 152.4W 50 200 03m12s
 02184 -10 -1090 Feb 14 14:59:22 26956 -38217 T -0.6152 1.0477 53.4S 84.6E 52 201 03m27s
 02227 -09 -1072 Feb 25 23:03:35 26622 -37994 T -0.5781 1.0495 46.9S 38.1W 54 201 03m45s
 02270 -08 -1054 Mar 08 06:59:28 26291 -37771 T -0.5344 1.0511 39.8S 160.0W 57 200 04m04s
 02313 -07 -1036 Mar 18 14:46:50 25962 -37548 T -0.4843 1.0523 32.4S 79.6E 61 197 04m22s
 02358 -06 -1018 Mar 29 22:25:34 25635 -37325 T -0.4276 1.0531 24.7S 39.2W 65 194 04m38s
 02400 -05 -1000 Apr 09 05:57:32 25310 -37102 T -0.3655 1.0533 16.8S 156.3W 68 189 04m51s
 02441 -04 -0982 Apr 20 13:23:00 24987 -36879 T -0.2985 1.0529 8.9S 88.2E 73 183 04m59s
 02482 -03 -0964 Apr 30 20:43:01 24666 -36656 T -0.2274 1.0517 1.0S 25.7W 77 176 05m00s
 02523 -02 -0946 May 12 03:58:30 24347 -36433 T -0.1532 1.0497 6.7N 138.1W 81 167 04m54s
 02564 -01 -0928 May 22 11:10:57 24030 -36210 Tm -0.0771 1.0470 14.0N 110.9E 86 157 04m39s
 02604 00 -0910 Jun 02 18:21:52 23716 -35987 T -0.0005 1.0435 20.9N 1.1E 90 145 04m16s
 02643 01 -0892 Jun 13 01:31:21 23403 -35764 T 0.0765 1.0392 27.1N 107.5W 85 132 03m47s
 02684 02 -0874 Jun 24 08:42:23 23093 -35541 T 0.1513 1.0343 32.4N 144.5E 81 117 03m13s
 02725 03 -0856 Jul 04 15:55:03 22784 -35318 T 0.2239 1.0287 36.8N 37.3E 77 100 02m37s
 02765 04 -0838 Jul 15 23:12:04 22478 -35095 T 0.2919 1.0227 39.9N 70.2W 73 81 02m01s
 02806 05 -0820 Jul 26 06:32:15 22174 -34872 H3 0.3561 1.0161 41.8N 177.9W 69 59 01m24s
 02847 06 -0802 Aug 06 13:59:03 21871 -34649 H 0.4140 1.0094 42.3N 72.9E 65 36 00m48s
 02888 07 -0784 Aug 16 21:31:24 21571 -34426 H 0.4666 1.0024 41.8N 38.1W 62 9 00m12s
 02929 08 -0766 Aug 28 05:11:00 21273 -34203 A 0.5121 0.9955 40.3N 151.7W 59 18 00m23s
 02971 09 -0748 Sep 07 12:57:40 20977 -33980 A 0.5509 0.9886 38.1N 92.0E 56 48 00m58s
 03013 10 -0730 Sep 18 20:52:12 20683 -33757 A 0.5823 0.9821 35.5N 27.3W 54 77 01m34s
 03057 11 -0712 Sep 29 04:54:14 20391 -33534 A 0.6068 0.9758 32.6N 149.3W 52 107 02m11s
 03101 12 -0694 Oct 10 13:01:39 20101 -33311 A 0.6263 0.9701 29.7N 86.8E 51 135 02m48s
 03146 13 -0676 Oct 20 21:15:40 19814 -33088 A 0.6394 0.9648 26.8N 39.3W 50 161 03m27s

03191	14	-0658	Nov 01	05:33:35	19528	-32865	A	0.6482	0.9602	24.1N	166.7W	49	185	04m05s
03236	15	-0640	Nov 11	13:55:10	19244	-32642	A	0.6536	0.9563	21.7N	64.8E	49	206	04m43s
03282	16	-0622	Nov 22	22:16:40	18963	-32419	A	0.6580	0.9530	19.8N	63.7W	49	224	05m19s
03329	17	-0604	Dec 03	06:38:55	18684	-32196	A	0.6612	0.9504	18.5N	167.7E	48	240	05m51s
03376	18	-0586	Dec 14	14:58:15	18406	-31973	A	0.6658	0.9484	18.0N	39.7E	48	253	06m18s
03424	19	-0568	Dec 24	23:13:44	18131	-31750	A	0.6726	0.9470	18.4N	87.3W	48	263	06m37s
03470	20	-0549	Jan 05	07:22:57	17858	-31527	A	0.6837	0.9460	19.8N	147.2E	47	273	06m47s
03515	21	-0531	Jan 15	15:25:39	17587	-31304	A	0.6993	0.9455	22.3N	23.1E	45	281	06m47s
03560	22	-0513	Jan 26	23:19:08	17317	-31081	A	0.7217	0.9452	25.9N	99.1W	44	291	06m38s
03605	23	-0495	Feb 06	07:03:27	17034	-30858	A	0.7509	0.9451	30.7N	140.3E	41	305	06m22s
03649	24	-0477	Feb 17	14:37:28	16717	-30635	A	0.7877	0.9451	36.7N	21.4E	38	326	06m00s
03693	25	-0459	Feb 27	22:02:12	16408	-30412	A	0.8311	0.9449	43.8N	96.4W	33	362	05m35s
03736	26	-0441	Mar 11	05:14:24	16109	-30189	A	0.8841	0.9444	52.5N	146.4E	27	436	05m08s
03780	27	-0423	Mar 21	12:18:06	15817	-29966	A	0.9433	0.9430	62.8N	24.3E	19	640	04m39s
03822	28	-0405	Apr 01	19:10:51	15533	-29743	A+	1.0107	0.9459	71.9N	138.8W	0		
03864	29	-0387	Apr 12	01:57:00	15256	-29520	P	1.0823	0.8230	71.6N	104.5E	0		
03906	30	-0369	Apr 23	08:32:44	14986	-29297	P	1.1614	0.6870	71.1N	9.2W	0		
03945	31	-0351	May 03	15:04:44	14722	-29074	P	1.2425	0.5475	70.5N	121.4W	0		
03984	32	-0333	May 14	21:29:55	14464	-28851	P	1.3284	0.3998	69.6N	128.7E	0		
04025	33	-0315	May 25	03:53:17	14212	-28628	P	1.4145	0.2521	68.7N	19.9E	0		
04066	34	-0297	Jun 05	10:12:52	13966	-28405	Pe	1.5027	0.1011	67.7N	87.4W	0		

SAROS SERIES

Saros series 43 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

01174	-36	-1512	Apr 29	15:38:06	35345	-43434	Pb	1.5386	0.0041	61.2N	16.3W	0	
01214	-35	-1494	May 10	22:40:29	34963	-43211	P	1.4688	0.1342	61.6N	132.4W	0	
01254	-34	-1476	May 21	05:39:55	34583	-42988	P	1.3975	0.2665	62.1N	112.1E	0	
01294	-33	-1458	Jun 01	12:36:59	34206	-42765	P	1.3249	0.4003	62.7N	2.9W	0	
01335	-32	-1440	Jun 11	19:34:14	33830	-42542	P	1.2530	0.5316	63.5N	118.1W	0	
01376	-31	-1422	Jun 23	02:32:27	33456	-42319	P	1.1828	0.6588	64.4N	126.1E	0	
01417	-30	-1404	Jul 03	09:33:53	33085	-42096	P	1.1160	0.7784	65.3N	9.3E	0	
01458	-29	-1386	Jul 14	16:37:21	32716	-41873	P	1.0515	0.8922	66.3N	108.4W	0	
01500	-28	-1368	Jul 24	23:47:15	32348	-41650	An	0.9934	0.9744	72.3N	130.2E	5	- 01m24s
01542	-27	-1350	Aug 05	07:01:49	31983	-41427	A	0.9399	0.9722	83.8N	51.1W	19	300 01m44s
01584	-26	-1332	Aug 15	14:24:39	31620	-41204	A	0.8938	0.9677	77.6N	143.6E	26	262 02m12s
01627	-25	-1314	Aug 26	21:53:09	31259	-40981	A	0.8532	0.9627	69.9N	17.0E	31	260 02m46s
01671	-24	-1296	Sep 06	05:31:22	30900	-40758	A	0.8213	0.9575	62.8N	105.0W	34	271 03m23s
01715	-23	-1278	Sep 17	13:15:57	30543	-40535	A	0.7954	0.9523	56.3N	133.1E	37	286 04m04s
01759	-22	-1260	Sep 27	21:08:24	30188	-40312	A	0.7766	0.9474	50.4N	10.0E	39	304 04m48s
01805	-21	-1242	Oct 09	05:06:41	29835	-40089	A	0.7632	0.9428	45.1N	114.3W	40	324 05m33s
01850	-20	-1224	Oct 19	13:11:44	29485	-39866	A	0.7557	0.9386	40.5N	120.1E	41	344 06m19s

01895	-19	-1206	Oct 30	21:20:03	29136	-39643	A	0.7517	0.9350	36.5N	6.3W	41	363	07m04s
01940	-18	-1188	Nov 10	05:31:05	28790	-39420	A	0.7504	0.9320	33.1N	133.3W	41	382	07m47s
01986	-17	-1170	Nov 21	13:42:38	28445	-39197	A	0.7502	0.9296	30.3N	99.6E	41	397	08m26s
02033	-16	-1152	Dec 01	21:54:20	28103	-38974	A	0.7504	0.9280	28.0N	27.5W	41	409	08m57s
02079	-15	-1134	Dec 13	06:01:40	27762	-38751	A	0.7477	0.9270	26.0N	153.4W	41	414	09m19s
02124	-14	-1116	Dec 23	14:05:12	27424	-38528	A	0.7423	0.9267	24.4N	81.6E	42	412	09m30s
02168	-13	-1097	Jan 03	22:01:28	27088	-38305	A	0.7314	0.9271	23.1N	41.4W	43	401	09m29s
02211	-12	-1079	Jan 14	05:51:35	26754	-38082	A	0.7159	0.9280	22.0N	162.6W	44	384	09m17s
02254	-11	-1061	Jan 25	13:30:53	26422	-37859	A	0.6917	0.9295	20.9N	79.3E	46	361	08m56s
02297	-10	-1043	Feb 04	21:02:29	26092	-37636	A	0.6615	0.9313	20.2N	36.5W	48	336	08m28s
02341	-09	-1025	Feb 16	04:22:31	25764	-37413	A	0.6221	0.9335	19.7N	148.9W	51	310	07m57s
02383	-08	-1007	Feb 26	11:33:23	25438	-37190	A	0.5754	0.9359	19.4N	101.4E	55	285	07m26s
02425	-07	-0989	Mar 09	18:32:53	25114	-36967	A	0.5194	0.9383	19.4N	4.8W	59	263	06m57s
02466	-06	-0971	Mar 20	01:24:23	24792	-36744	A	0.4570	0.9408	19.6N	108.6W	63	243	06m32s
02507	-05	-0953	Mar 31	08:06:38	24473	-36521	A	0.3868	0.9430	19.9N	150.4E	67	226	06m12s
02548	-04	-0935	Apr 10	14:40:46	24155	-36298	A	0.3100	0.9451	20.1N	51.9E	72	211	05m58s
02588	-03	-0917	Apr 21	21:08:47	23840	-36075	A	0.2285	0.9468	20.1N	44.8W	77	200	05m50s
02628	-02	-0899	May 02	03:31:49	23526	-35852	A	0.1429	0.9482	19.7N	140.0W	82	192	05m49s
02668	-01	-0881	May 13	09:51:29	23215	-35629	A	0.0545	0.9492	18.6N	125.6E	87	187	05m54s
02709	00	-0863	May 23	16:08:30	22906	-35406	Am	-0.0362	0.9498	16.8N	31.8E	88	184	06m05s
02749	01	-0845	Jun 03	22:26:25	22599	-35183	A	-0.1262	0.9498	14.2N	62.5W	83	186	06m22s
02789	02	-0827	Jun 14	04:45:39	22293	-34960	A	-0.2148	0.9494	10.7N	157.6W	78	190	06m42s
02830	03	-0809	Jun 25	11:08:06	21990	-34737	A	-0.3008	0.9486	6.4N	105.8E	73	198	07m04s
02871	04	-0791	Jul 05	17:35:32	21689	-34514	A	-0.3830	0.9474	1.3N	7.3E	67	209	07m23s
02912	05	-0773	Jul 17	00:10:02	21390	-34291	A	-0.4595	0.9459	4.4S	93.7W	63	224	07m36s
02954	06	-0755	Jul 27	06:52:13	21094	-34068	A	-0.5298	0.9441	10.5S	162.6E	58	243	07m42s
02996	07	-0737	Aug 07	13:42:29	20799	-33845	A	-0.5939	0.9421	17.0S	56.4E	53	265	07m40s
03040	08	-0719	Aug 17	20:43:10	20506	-33622	A	-0.6496	0.9400	23.7S	53.1W	49	291	07m31s

03084 09 -0701 Aug 29 03:53:51 20216 -33399 A -0.6975 0.9379 30.3S 165.6W 46 319 07m18s
 03129 10 -0683 Sep 08 11:15:17 19927 -33176 A -0.7371 0.9361 36.9S 78.9E 42 348 07m02s
 03174 11 -0665 Sep 19 18:46:45 19641 -32953 A -0.7690 0.9344 43.2S 39.3W 39 378 06m44s
 03219 12 -0647 Sep 30 02:28:46 19356 -32730 A -0.7927 0.9332 49.2S 160.1W 37 405 06m26s
 03264 13 -0629 Oct 11 10:19:51 19074 -32507 A -0.8096 0.9323 54.8S 77.1E 36 428 06m08s
 03310 14 -0611 Oct 21 18:18:09 18794 -32284 A -0.8210 0.9322 60.1S 46.9W 34 443 05m50s
 03357 15 -0593 Nov 02 02:24:04 18515 -32061 A -0.8268 0.9325 65.1S 171.4W 34 449 05m32s
 03405 16 -0575 Nov 12 10:34:31 18239 -31838 A -0.8298 0.9336 69.8S 65.1E 34 446 05m15s
 03452 17 -0557 Nov 23 18:49:07 17965 -31615 A -0.8297 0.9354 74.0S 55.6W 34 434 04m57s
 03497 18 -0539 Dec 04 03:03:45 17693 -31392 A -0.8304 0.9378 77.6S 170.2W 34 419 04m39s
 03542 19 -0521 Dec 15 11:19:54 17423 -31169 A -0.8304 0.9409 79.7S 84.1E 34 397 04m20s
 03587 20 -0503 Dec 25 19:33:10 17156 -30946 A -0.8340 0.9446 79.6S 16.0W 33 374 03m59s
 03632 21 -0484 Jan 06 03:43:31 16841 -30723 A -0.8405 0.9488 77.3S 121.4W 32 350 03m38s
 03675 22 -0466 Jan 16 11:47:55 16529 -30500 A -0.8528 0.9533 74.1S 127.4E 31 328 03m16s
 03719 23 -0448 Jan 27 19:47:31 16226 -30277 A -0.8698 0.9583 70.6S 12.6E 29 308 02m53s
 03763 24 -0430 Feb 07 03:39:58 15931 -30054 A -0.8937 0.9633 67.4S 102.0W 26 296 02m30s
 03805 25 -0412 Feb 18 11:25:21 15644 -29831 A -0.9242 0.9683 64.7S 145.4E 22 299 02m07s
 03847 26 -0394 Feb 28 19:03:05 15364 -29608 A -0.9619 0.9727 63.0S 37.8E 15 362 01m46s
 03889 27 -0376 Mar 11 02:34:06 15092 -29385 P -1.0057 0.9726 60.8S 52.2W 0
 03930 28 -0358 Mar 22 09:57:33 14825 -29162 P -1.0565 0.8844 60.7S 172.8W 0
 03969 29 -0340 Apr 01 17:15:28 14565 -28939 P -1.1126 0.7853 60.8S 67.9E 0
 04009 30 -0322 Apr 13 00:27:44 14311 -28716 P -1.1739 0.6756 61.0S 50.0W 0
 04050 31 -0304 Apr 23 07:37:10 14063 -28493 P -1.2383 0.5588 61.3S 167.2W 0
 04091 32 -0286 May 04 14:41:45 13820 -28270 P -1.3071 0.4326 61.8S 76.7E 0
 04131 33 -0268 May 14 21:46:32 13582 -28047 P -1.3763 0.3045 62.4S 39.6W 0
 04171 34 -0250 May 26 04:49:31 13349 -27824 P -1.4474 0.1720 63.2S 155.6W 0
 04212 35 -0232 Jun 05 11:55:23 13121 -27601 Pe -1.5169 0.0413 64.0S 87.4E 0

SAROS SERIES

44

Saros series 44 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01319	-34	-1447	Apr 30	16:14:13	33978	-42630	Pb	-1.5170	0.0757	71.0S	135.5E	0	
01360	-33	-1429	May 11	22:34:56	33604	-42407	P	-1.4306	0.2237	70.4S	25.6E	0	
01401	-32	-1411	May 22	04:55:43	33231	-42184	P	-1.3429	0.3744	69.6S	83.8W	0	
01442	-31	-1393	Jun 02	11:18:15	32861	-41961	P	-1.2553	0.5257	68.7S	167.0E	0	
01483	-30	-1375	Jun 12	17:43:49	32493	-41738	P	-1.1691	0.6748	67.7S	57.6E	0	
01525	-29	-1357	Jun 24	00:13:59	32127	-41515	P	-1.0855	0.8198	66.7S	52.5W	0	
01567	-28	-1339	Jul 04	06:50:46	31763	-41292	A-	-1.0061	0.9574	65.7S	163.7W	0	
01610	-27	-1321	Jul 15	13:35:28	31401	-41069	A	-0.9318	0.9509	44.6S	93.8E	21	498 05m04s
01654	-26	-1303	Jul 25	20:28:00	31042	-40846	A	-0.8627	0.9530	35.8S	12.6W	30	337 05m09s
01697	-25	-1285	Aug 06	03:31:11	30684	-40623	A	-0.8011	0.9540	30.5S	121.3W	37	276 05m06s
01742	-24	-1267	Aug 16	10:44:25	30328	-40400	A	-0.7469	0.9546	27.4S	127.8E	41	244 04m59s

01787	-23	-1249	Aug 27	18:09:35	29974	-40177	A	-0.7012	0.9549	26.1S	14.0E	45	225	04m50s
01832	-22	-1231	Sep 07	01:43:58	29623	-39954	A	-0.6621	0.9550	26.2S	101.9W	48	213	04m40s
01877	-21	-1213	Sep 18	09:30:30	29273	-39731	A	-0.6319	0.9552	27.7S	139.1E	51	206	04m29s
01922	-20	-1195	Sep 28	17:25:34	28926	-39508	A	-0.6079	0.9555	30.0S	18.0E	52	200	04m18s
01967	-19	-1177	Oct 10	01:30:33	28581	-39285	A	-0.5913	0.9562	33.3S	105.5W	54	194	04m07s
02014	-18	-1159	Oct 20	09:42:04	28238	-39062	A	-0.5793	0.9571	37.0S	129.6E	54	188	03m55s
02060	-17	-1141	Oct 31	18:01:02	27896	-38839	A	-0.5727	0.9586	41.2S	3.2E	55	181	03m41s
02106	-16	-1123	Nov 11	02:23:36	27557	-38616	A	-0.5683	0.9606	45.4S	123.4W	55	172	03m26s
02151	-15	-1105	Nov 22	10:49:20	27220	-38393	A	-0.5659	0.9632	49.4S	110.2E	55	161	03m09s
02194	-14	-1087	Dec 02	19:15:52	26885	-38170	A	-0.5634	0.9664	52.9S	14.9W	55	146	02m50s
02237	-13	-1069	Dec 14	03:42:16	26552	-37947	A	-0.5605	0.9703	55.6S	138.6W	56	129	02m29s
02280	-12	-1051	Dec 24	12:05:18	26222	-37724	A	-0.5537	0.9748	57.0S	100.1E	56	108	02m06s
02323	-11	-1032	Jan 04	20:24:42	25893	-37501	A	-0.5432	0.9799	56.8S	19.7W	57	85	01m41s
02366	-10	-1014	Jan 15	04:38:44	25566	-37278	A	-0.5275	0.9856	54.9S	138.8W	58	60	01m13s
02408	-09	-0996	Jan 26	12:47:41	25242	-37055	A	-0.5068	0.9917	51.6S	102.0E	59	34	00m43s
02449	-08	-0978	Feb 05	20:48:17	24919	-36832	A	-0.4783	0.9982	46.9S	17.0W	61	7	00m09s
02490	-07	-0960	Feb 17	04:42:54	24599	-36609	H	-0.4440	1.0050	41.2S	136.0W	63	19	00m27s
02531	-06	-0942	Feb 27	12:29:02	24280	-36386	H	-0.4016	1.0118	34.7S	105.6E	66	44	01m05s
02572	-05	-0924	Mar 09	20:09:35	23964	-36163	T	-0.3537	1.0187	27.7S	12.2W	69	68	01m45s
02612	-04	-0906	Mar 21	03:41:44	23650	-35940	T	-0.2981	1.0254	20.2S	128.5W	73	90	02m26s
02652	-03	-0888	Mar 31	11:09:47	23338	-35717	T	-0.2381	1.0318	12.5S	115.8E	76	110	03m06s
02693	-02	-0870	Apr 11	18:31:51	23028	-35494	T	-0.1722	1.0377	4.6S	1.6E	80	128	03m42s
02734	-01	-0852	Apr 22	01:50:28	22720	-35271	T	-0.1025	1.0432	3.3N	111.8W	84	145	04m14s
02773	00	-0834	May 03	09:05:39	22414	-35048	T	-0.0291	1.0480	11.2N	136.1E	88	159	04m38s
02814	01	-0816	May 13	16:20:00	22110	-34825	T	0.0458	1.0521	18.8N	24.6E	87	173	04m56s
02855	02	-0798	May 24	23:34:25	21808	-34602	Tm	0.1215	1.0554	26.1N	86.2W	83	184	05m04s
02896	03	-0780	Jun 04	06:49:16	21508	-34379	T	0.1975	1.0580	32.8N	163.9E	78	195	05m06s
02937	04	-0762	Jun 15	14:07:32	21211	-34156	T	0.2715	1.0596	38.9N	54.3E	74	204	05m00s

02979	05	-0744	Jun 25	21:29:20	20915	-33933	T	0.3434	1.0605	44.0N	54.8W	70	212	04m51s
03022	06	-0726	Jul 07	04:56:39	20621	-33710	T	0.4113	1.0607	47.9N	163.9W	65	219	04m38s
03067	07	-0708	Jul 17	12:28:51	20330	-33487	T	0.4756	1.0601	50.5N	86.9E	61	225	04m25s
03111	08	-0690	Jul 28	20:09:10	20041	-33264	T	0.5338	1.0589	51.6N	23.9W	57	229	04m11s
03156	09	-0672	Aug 08	03:56:31	19753	-33041	T	0.5867	1.0572	51.4N	136.8W	54	232	03m59s
03201	10	-0654	Aug 19	11:52:06	19468	-32818	T	0.6332	1.0551	50.3N	107.3E	50	233	03m47s
03246	11	-0636	Aug 29	19:55:51	19185	-32595	T	0.6733	1.0528	48.3N	12.1W	47	234	03m36s
03292	12	-0618	Sep 10	04:09:08	18904	-32372	T	0.7056	1.0503	45.9N	135.3W	45	232	03m28s
03339	13	-0600	Sep 20	12:30:31	18625	-32149	T	0.7318	1.0478	43.3N	98.2E	43	229	03m21s
03386	14	-0582	Oct 01	20:59:24	18348	-31926	T	0.7520	1.0455	40.6N	31.1W	41	225	03m16s
03433	15	-0564	Oct 12	05:35:35	18073	-31703	T	0.7664	1.0435	37.9N	163.1W	40	221	03m13s
03479	16	-0546	Oct 23	14:18:31	17800	-31480	T	0.7755	1.0418	35.3N	62.7E	39	216	03m11s
03524	17	-0528	Nov 02	23:05:46	17530	-31257	T	0.7813	1.0406	33.0N	72.9W	38	213	03m13s
03569	18	-0510	Nov 14	07:57:17	17261	-31034	T	0.7837	1.0397	31.0N	150.2E	38	211	03m16s
03614	19	-0492	Nov 24	16:50:18	16966	-30811	T	0.7851	1.0395	29.4N	12.7E	38	211	03m21s
03659	20	-0474	Dec 06	01:44:51	16651	-30588	T	0.7855	1.0397	28.4N	125.2W	38	213	03m27s
03703	21	-0456	Dec 16	10:36:32	16345	-30365	T	0.7883	1.0403	28.2N	97.7E	38	219	03m34s
03746	22	-0438	Dec 27	19:27:14	16047	-30142	T	0.7922	1.0413	28.7N	39.2W	37	227	03m40s
03789	23	-0419	Jan 07	04:12:19	15757	-29919	T	0.8004	1.0426	30.2N	174.7W	37	238	03m46s
03831	24	-0401	Jan 18	12:52:53	15474	-29696	T	0.8128	1.0442	32.8N	50.6E	35	253	03m49s
03873	25	-0383	Jan 28	21:25:04	15198	-29473	T	0.8320	1.0456	36.6N	82.4W	33	274	03m49s
03914	26	-0365	Feb 09	05:51:31	14930	-29250	T	0.8559	1.0471	41.5N	145.4E	31	302	03m45s
03953	27	-0347	Feb 19	14:08:39	14667	-29027	T	0.8873	1.0481	47.7N	14.1E	27	346	03m36s
03993	28	-0329	Mar 02	22:17:43	14411	-28804	T	0.9252	1.0486	55.3N	117.9W	22	427	03m22s
04034	29	-0311	Mar 13	06:17:39	14160	-28581	T	0.9704	1.0476	64.9N	103.7E	13	680	02m58s
04075	30	-0293	Mar 24	14:10:04	13915	-28358	P	1.0217	0.9751	71.8N	60.9W	0		
04115	31	-0275	Apr 03	21:54:21	13675	-28135	P	1.0792	0.8654	71.7N	167.9E	0		
04155	32	-0257	Apr 15	05:31:25	13440	-27912	P	1.1422	0.7449	71.4N	38.8E	0		

04196 33 -0239 Apr 25 13:02:25 13210 -27689 P 1.2099 0.6153 70.8N 88.3W 0

04237 34 -0221 May 06 20:28:38 12985 -27466 P 1.2811 0.4790 70.1N 146.3E 0

04278 35 -0203 May 17 03:49:42 12764 -27243 P 1.3559 0.3360 69.3N 22.8E 0

04319 36 -0185 May 28 11:08:37 12547 -27020 P 1.4317 0.1917 68.4N 99.6W 0

04362 37 -0167 Jun 07 18:25:15 12335 -26797 Pe 1.5089 0.0459 67.4N 139.1E 0

SAROS SERIES

45

Saros series 45 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01344 -37 -1436 Mar 30 06:41:36 33751 -42495 Pb 1.5035 0.0569 60.7N 135.2E 0

01385 -36 -1418 Apr 10 14:11:01 33378 -42272 P 1.4371 0.1817 60.7N 12.5E 0

01426 -35 -1400 Apr 20 21:34:37 33007 -42049 P 1.3652 0.3183 60.9N 108.7W 0

01467 -34 -1382 May 02 04:57:24 32638 -41826 P 1.2920 0.4585 61.2N 130.2E 0

01509 -33 -1364 May 12 12:17:35 32271 -41603 P 1.2162 0.6046 61.6N 9.7E 0

01551 -32 -1346 May 23 19:38:06 31907 -41380 P 1.1401 0.7519 62.2N 111.0W 0

01594 -31 -1328 Jun 03 02:59:25 31544 -41157 P 1.0642 0.8990 62.9N 127.9E 0

01637 -30 -1310 Jun 14 10:23:54 31183 -40934 Tn 0.9907 1.0593 69.1N 15.3E 7 - 02m48s

01680 -29 -1292 Jun 24 17:51:46 30825 -40711 T 0.9192 1.0642 80.8N 53.7W 23 544 03m22s

01725 -28 -1274 Jul 06 01:24:05 30468 -40488 T 0.8514 1.0658 81.2N 106.7W 31 415 03m41s

01769 -27 -1256 Jul 16 09:02:38 30114 -40265 T 0.7885 1.0660 75.7N 166.8E 38 353 03m55s

01815 -26 -1238 Jul 27 16:48:02 29761 -40042 T 0.7314 1.0651 69.2N 59.6E 43 314 04m04s

01860 -25 -1220 Aug 07 00:40:29 29411 -39819 T 0.6800 1.0636 62.4N 55.7W 47 285 04m11s

01904 -24 -1202 Aug 18 08:41:01 29063 -39596 T 0.6354 1.0613 55.8N 175.8W 50 261 04m15s

01949 -23 -1184 Aug 28 16:50:05 28717 -39373 T 0.5979 1.0587 49.3N 60.5E 53 241 04m16s

01995 -22 -1166 Sep 09 01:07:30 28373 -39150 T 0.5678 1.0558 43.1N 66.0W 55 223 04m13s

02041 -21 -1148 Sep 19 09:31:35 28031 -38927 T 0.5435 1.0528 37.1N 165.3E 57 207 04m10s

02087 -20 -1130 Sep 30 18:04:06 27691 -38704 T 0.5265 1.0498 31.5N 34.3E 58 193 04m05s

02133 -19 -1112 Oct 11 02:42:45 27353 -38481 T 0.5147 1.0469 26.4N 98.3W 59 181 03m59s

02177 -18 -1094 Oct 22 11:27:40 27017 -38258 T 0.5085 1.0444 21.8N 127.5E 59 171 03m54s

02220 -17 -1076 Nov 01 20:15:33 26684 -38035 T 0.5050 1.0421 17.7N 7.3W 60 162 03m50s

02263 -16 -1058 Nov 13 05:07:35 26352 -37812 T 0.5052 1.0404 14.3N 143.1W 60 156 03m47s

02306 -15 -1040 Nov 23 14:00:18 26022 -37589 T 0.5062 1.0390 11.4N 81.0E 60 151 03m45s

02350 -14 -1022 Dec 04 22:52:43 25695 -37366 T 0.5071 1.0382 9.2N 54.8W 59 149 03m44s

02392 -13 -1004 Dec 15 07:42:49 25369 -37143 T 0.5063 1.0378 7.5N 170.1E 60 147 03m45s

02433 -12 -0986 Dec 26 16:29:37 25046 -36920 T 0.5028 1.0380 6.4N 35.9E 60 147 03m46s

02474 -11 -0967 Jan 06 01:10:53 24725 -36697 T 0.4952 1.0385 5.8N 96.8W 60 148 03m47s

02515 -10 -0949 Jan 17 09:45:26 24406 -36474 T 0.4822 1.0393 5.6N 132.3E 61 150 03m49s

02556 -09 -0931 Jan 27 18:12:47 24089 -36251 T 0.4636 1.0404 5.9N 3.2E 62 152 03m50s

02596 -08 -0913 Feb 08 02:31:54 23773 -36028 T 0.4384 1.0416 6.5N 123.5W 64 154 03m51s

02636 -07 -0895 Feb 18 10:41:15 23461 -35805 T 0.4055 1.0428 7.3N 112.3E 66 155 03m51s

02677 -06 -0877 Mar 01 18:41:51 23150 -35582 T 0.3660 1.0439 8.4N 9.4W 68 156 03m52s

02718 -05 -0859 Mar 12 02:33:05 22841 -35359 T 0.3192 1.0447 9.6N 128.5W 71 156 03m52s

02758 -04 -0841 Mar 23 10:16:26 22534 -35136 T 0.2662 1.0452 10.9N 114.7E 74 155 03m52s
02798 -03 -0823 Apr 02 17:49:55 22229 -34913 T 0.2058 1.0451 12.0N 0.7E 78 153 03m51s
02839 -02 -0805 Apr 14 01:17:25 21927 -34690 T 0.1409 1.0445 13.0N 111.7W 82 150 03m50s
02880 -01 -0787 Apr 24 08:36:58 21626 -34467 Tm 0.0704 1.0432 13.5N 138.3E 86 145 03m47s
02921 00 -0769 May 05 15:52:09 21328 -34244 T -0.0033 1.0413 13.5N 29.4E 90 138 03m44s
02962 01 -0751 May 15 23:01:44 21031 -34021 T -0.0809 1.0386 12.6N 78.0W 85 130 03m37s
03004 02 -0733 May 27 06:09:39 20737 -33798 T -0.1591 1.0352 11.0N 174.9E 81 120 03m26s
03048 03 -0715 Jun 06 13:15:20 20445 -33575 T -0.2380 1.0310 8.5N 68.0E 76 108 03m10s
03093 04 -0697 Jun 17 20:20:39 20155 -33352 T -0.3164 1.0261 5.1N 39.3W 72 93 02m47s
03138 05 -0679 Jun 28 03:27:14 19866 -33129 T -0.3926 1.0206 0.8N 147.5W 67 76 02m16s
03183 06 -0661 Jul 09 10:36:00 19580 -32906 H3 -0.4659 1.0146 4.3S 103.1E 62 56 01m38s
03228 07 -0643 Jul 19 17:48:48 19297 -32683 H -0.5348 1.0080 9.9S 7.9W 58 33 00m54s
03274 08 -0625 Jul 31 01:05:12 19015 -32460 H -0.5995 1.0011 16.1S 120.5W 53 5 00m07s
03320 09 -0607 Aug 10 08:28:22 18735 -32237 A -0.6572 0.9940 22.6S 124.5E 49 28 00m39s
03367 10 -0589 Aug 21 15:57:08 18457 -32014 A -0.7092 0.9868 29.4S 7.6E 45 66 01m22s
03415 11 -0571 Aug 31 23:33:40 18181 -31791 A -0.7536 0.9796 36.1S 111.8W 41 109 02m01s
03461 12 -0553 Sep 12 07:16:43 17908 -31568 A -0.7916 0.9726 42.8S 126.6E 37 159 02m33s
03506 13 -0535 Sep 22 15:08:15 17636 -31345 A -0.8218 0.9659 49.3S 2.6E 34 214 03m01s
03551 14 -0517 Oct 03 23:05:52 17367 -31122 A -0.8458 0.9597 55.4S 123.3W 32 273 03m23s
03596 15 -0499 Oct 14 07:09:56 17094 -30899 A -0.8637 0.9540 61.2S 109.1E 30 333 03m40s
03641 16 -0481 Oct 25 15:19:12 16774 -30676 A -0.8766 0.9489 66.7S 19.9W 28 391 03m54s
03685 17 -0463 Nov 04 23:33:41 16465 -30453 A -0.8847 0.9445 71.8S 149.3W 27 442 04m06s
03729 18 -0445 Nov 16 07:50:05 16163 -30230 A -0.8905 0.9409 76.8S 82.0E 27 487 04m15s
03773 19 -0427 Nov 26 16:07:50 15870 -30007 A -0.8945 0.9379 81.6S 43.6W 26 524 04m22s
03815 20 -0409 Dec 08 00:24:23 15585 -29784 A -0.8989 0.9357 86.2S 156.3W 26 557 04m27s
03857 21 -0391 Dec 18 08:39:37 15306 -29561 A -0.9039 0.9339 87.5S 170.1E 25 587 04m31s
03899 22 -0373 Dec 29 16:48:43 15035 -29338 A -0.9133 0.9327 83.4S 81.2E 24 629 04m33s
03938 23 -0354 Jan 09 00:53:20 14770 -29115 A -0.9257 0.9319 78.9S 35.4W 22 686 04m34s

03977	24	-0336	Jan 20	08:48:59	14511	-28892	A	-0.9449	0.9312	74.4S	151.1W	19	804	04m33s
04018	25	-0318	Jan 30	16:37:39	14258	-28669	A	-0.9688	0.9305	69.9S	96.1E	14	1092	04m31s
04059	26	-0300	Feb 11	00:14:24	14011	-28446	A-	-1.0021	0.9559	61.8S	1.0E	0		
04100	27	-0282	Feb 21	07:43:16	13769	-28223	P	-1.0409	0.8905	61.3S	121.0W	0		
04140	28	-0264	Mar 03	14:59:58	13532	-28000	P	-1.0891	0.8090	60.9S	120.1E	0		
04180	29	-0246	Mar 14	22:07:25	13300	-27777	P	-1.1439	0.7160	60.7S	3.6E	0		
04221	30	-0228	Mar 25	05:03:37	13073	-27554	P	-1.2070	0.6086	60.6S	110.1W	0		
04261	31	-0210	Apr 05	11:52:15	12851	-27331	P	-1.2754	0.4918	60.7S	138.2E	0		
04302	32	-0192	Apr 15	18:32:04	12632	-27108	P	-1.3502	0.3636	61.0S	28.6E	0		
04344	33	-0174	Apr 27	01:04:42	12418	-26885	P	-1.4299	0.2270	61.4S	79.3W	0		
04388	34	-0156	May 07	07:31:45	12208	-26662	Pe	-1.5131	0.0844	62.0S	174.2E	0		

SAROS SERIES

46

Saros series 46 contains 72 solar eclipses.

[illegible]

ECLIPSE

01492 -36 -1371 Apr 01 12:44:43 32416 -41691 Pb -1.5280 0.0258 71.5S 142.6W 0

01534 -35 -1353 Apr 12 19:56:23 32050 -41468 P -1.4667 0.1390 71.4S 94.0E 0

01576 -34 -1335 Apr 23 03:03:14 31687 -41245 P -1.4024 0.2575 71.2S 27.9W 0

01619 -33 -1317 May 04 10:01:54 31325 -41022 P -1.3322 0.3865 70.7S 147.4W 0

01663 -32 -1299 May 14 16:58:50 30966 -40799 P -1.2611 0.5164 70.0S 93.9E 0

01707 -31 -1281 May 25 23:51:04 30609 -40576 P -1.1866 0.6517 69.2S 23.1W 0

01751 -30 -1263 Jun 05 06:43:23 30253 -40353 P -1.1127 0.7847 68.3S 139.5W 0

01797 -29 -1245 Jun 16 13:34:06 29900 -40130 P -1.0381 0.9177 67.3S 105.0E 0

01842 -28 -1227 Jun 26 20:27:49 29549 -39907 A -0.9665 0.9820 52.1S 8.8W 14 258 01m37s

01887 -27 -1209 Jul 08 03:23:31 29200 -39684 A -0.8972 0.9796 39.9S 118.1W 26 165 02m03s

01932 -26 -1191 Jul 18 10:23:28 28853 -39461 A -0.8318 0.9758 32.3S 132.9E 33 155 02m35s

01977 -25 -1173 Jul 29 17:28:25 28508 -39238 A -0.7713 0.9712 27.2S 23.4E 39 160 03m10s

02024 -24 -1155 Aug 09 00:40:11 28165 -39015 A -0.7169 0.9663 24.0S 87.3W 44 172 03m44s

02070 -23 -1137 Aug 20 07:58:52 27825 -38792 A -0.6690 0.9610 22.4S 160.5E 48 186 04m17s

02115 -22 -1119 Aug 30 15:24:47 27486 -38569 A -0.6278 0.9557 22.1S 46.7E 51 203 04m47s

02160 -21 -1101 Sep 10 22:58:38 27150 -38346 A -0.5936 0.9504 23.1S 69.0W 53 221 05m15s

02203 -20 -1083 Sep 21 06:40:11 26815 -38123 A -0.5664 0.9454 25.2S 173.4E 55 239 05m40s

02246 -19 -1065 Oct 02 14:28:21 26483 -37900 A -0.5454 0.9407 28.0S 54.3E 57 257 06m02s

02289 -18 -1047 Oct 12 22:23:36 26152 -37677 A -0.5307 0.9364 31.6S 66.6W 58 274 06m23s

02333 -17 -1029 Oct 24 06:24:09 25824 -37454 A -0.5211 0.9327 35.5S 171.6E 58 291 06m41s

02376 -16 -1011 Nov 03 14:29:28 25498 -37231 A -0.5157 0.9295 39.7S 49.0E 59 305 06m56s

02418 -15 -0993 Nov 14 22:36:00 25174 -37008 A -0.5116 0.9270 43.8S 73.1W 59 317 07m09s

02458 -14 -0975 Nov 25 06:44:22 24851 -36785 A -0.5096 0.9252 47.5S 165.3E 59 326 07m19s

02499 -13 -0957 Dec 06 14:51:13 24531 -36562 A -0.5070 0.9240 50.6S 45.4E 59 332 07m27s

02540 -12 -0939 Dec 16 22:55:10 24214 -36339 A -0.5023 0.9237 52.7S 72.5W 60 333 07m33s

02580 -11 -0921 Dec 28 06:53:44 23898 -36116 A -0.4937 0.9238 53.3S 171.9E 60 331 07m38s

02620	-10	-0902	Jan 07	14:46:26	23584	-35893	A	-0.4807	0.9247	52.4S	57.8E	61	324	07m41s
02660	-09	-0884	Jan 18	22:31:37	23272	-35670	A	-0.4619	0.9261	50.0S	55.3W	62	314	07m44s
02701	-08	-0866	Jan 29	06:07:11	22962	-35447	A	-0.4358	0.9280	46.0S	167.3W	64	301	07m46s
02742	-07	-0848	Feb 09	13:33:40	22655	-35224	A	-0.4026	0.9301	40.9S	81.4E	66	286	07m48s
02782	-06	-0830	Feb 19	20:49:59	22349	-35001	A	-0.3612	0.9327	34.8S	28.8W	69	269	07m48s
02823	-05	-0812	Mar 02	03:56:29	22046	-34778	A	-0.3122	0.9353	27.9S	137.6W	72	253	07m46s
02864	-04	-0794	Mar 13	10:52:47	21745	-34555	A	-0.2548	0.9381	20.4S	115.4E	75	237	07m40s
02905	-03	-0776	Mar 23	17:40:54	21445	-34332	A	-0.1907	0.9407	12.6S	10.0E	79	223	07m32s
02946	-02	-0758	Apr 04	00:20:54	21148	-34109	A	-0.1200	0.9432	4.4S	93.7W	83	211	07m20s
02988	-01	-0740	Apr 14	06:52:52	20853	-33886	A	-0.0426	0.9455	4.1N	164.6E	88	201	07m04s
03032	00	-0722	Apr 25	13:19:51	20560	-33663	Am	0.0391	0.9475	12.6N	64.3E	88	193	06m45s
03076	01	-0704	May 05	19:42:17	20269	-33440	A	0.1249	0.9491	21.1N	34.5W	83	188	06m23s
03120	02	-0686	May 17	02:03:10	19980	-33217	A	0.2121	0.9503	29.4N	132.2W	78	187	05m59s
03165	03	-0668	May 27	08:21:30	19693	-32994	A	0.3016	0.9510	37.5N	131.7E	72	189	05m34s
03210	04	-0650	Jun 07	14:42:20	19408	-32771	A	0.3893	0.9512	45.0N	36.3E	67	194	05m12s
03255	05	-0632	Jun 17	21:04:47	19126	-32548	A	0.4762	0.9509	51.9N	57.6W	61	205	04m53s
03302	06	-0614	Jun 29	03:31:25	18845	-32325	A	0.5597	0.9503	57.8N	149.8W	56	221	04m37s
03349	07	-0596	Jul 09	10:03:01	18566	-32102	A	0.6394	0.9490	62.4N	119.8E	50	244	04m26s
03396	08	-0578	Jul 20	16:42:17	18290	-31879	A	0.7131	0.9476	65.2N	30.4E	44	275	04m19s
03443	09	-0560	Jul 30	23:29:54	18015	-31656	A	0.7805	0.9456	66.1N	59.8W	38	320	04m16s
03488	10	-0542	Aug 11	06:25:39	17743	-31433	A	0.8418	0.9435	65.6N	152.8W	32	384	04m17s
03533	11	-0524	Aug 21	13:32:20	17473	-31210	A	0.8945	0.9412	64.2N	109.3E	26	484	04m20s
03578	12	-0506	Sep 01	20:49:02	17205	-30987	A	0.9396	0.9387	62.7N	7.5E	20	664	04m25s
03623	13	-0488	Sep 12	04:17:06	16899	-30764	A	0.9761	0.9359	61.6N	97.0W	12	1132	04m30s
03667	14	-0470	Sep 23	11:54:07	16586	-30541	A+	1.0061	0.9514	60.6N	163.4E	0		
03711	15	-0452	Oct 03	19:42:34	16281	-30318	P	1.0275	0.9146	60.7N	36.4E	0		
03755	16	-0434	Oct 15	03:38:57	15985	-30095	P	1.0434	0.8875	60.8N	92.6W	0		
03798	17	-0416	Oct 25	11:43:57	15696	-29872	P	1.0527	0.8718	61.2N	136.3E	0		

03840	18	-0398	Nov 05	19:54:43	15415	-29649	P	1.0582	0.8627	61.7N	3.6E	0
03882	19	-0380	Nov 16	04:11:34	15141	-29426	P	1.0592	0.8616	62.3N	130.7W	0
03923	20	-0362	Nov 27	12:30:33	14874	-29203	P	1.0592	0.8622	63.1N	94.2E	0
03962	21	-0344	Dec 07	20:51:06	14613	-28980	P	1.0588	0.8640	64.0N	41.4W	0
04002	22	-0326	Dec 19	05:10:48	14357	-28757	P	1.0595	0.8640	65.0N	177.2W	0
04043	23	-0308	Dec 29	13:29:23	14108	-28534	P	1.0614	0.8622	66.1N	46.9E	0
04084	24	-0289	Jan 09	21:42:33	13864	-28311	P	1.0685	0.8515	67.2N	88.2W	0
04124	25	-0271	Jan 20	05:51:47	13625	-28088	P	1.0794	0.8342	68.2N	137.3E	0
04164	26	-0253	Jan 31	13:53:47	13391	-27865	P	1.0968	0.8054	69.2N	4.0E	0
04205	27	-0235	Feb 10	21:50:55	13162	-27642	P	1.1190	0.7678	70.1N	128.7W	0
04246	28	-0217	Feb 22	05:38:32	12938	-27419	P	1.1494	0.7153	70.8N	100.4E	0
04287	29	-0199	Mar 04	13:21:05	12718	-27196	P	1.1848	0.6531	71.4N	29.7W	0
04328	30	-0181	Mar 15	20:54:50	12502	-26973	P	1.2282	0.5757	71.7N	158.0W	0
04371	31	-0163	Mar 26	04:23:52	12291	-26750	P	1.2760	0.4891	71.7N	74.9E	0
04414	32	-0145	Apr 06	11:45:06	12083	-26527	P	1.3309	0.3886	71.6N	50.2W	0
04457	33	-0127	Apr 16	19:03:40	11879	-26304	P	1.3888	0.2815	71.2N	174.4W	0
04500	34	-0109	Apr 28	02:16:52	11678	-26081	P	1.4516	0.1641	70.6N	63.3E	0
04543	35	-0091	May 08	09:27:57	11481	-25858	Pe	1.5167	0.0414	69.8N	57.9W	0

SAROS SERIES

Saros series 47 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
												°	km
GREATEST													
ECLIPSE													

01646	-34	-1306	Apr 02	13:04:59	31107	-40887	Pb	1.4985	0.1100	60.6N	25.3E	0	
01689	-33	-1288	Apr 12	19:37:54	30749	-40664	P	1.4205	0.2425	60.6N	83.1W	0	
01734	-32	-1270	Apr 24	02:06:07	30393	-40441	P	1.3379	0.3840	60.9N	169.7E	0	
01779	-31	-1252	May 04	08:33:10	30039	-40218	P	1.2528	0.5306	61.2N	62.6E	0	
01824	-30	-1234	May 15	14:57:03	29687	-39995	P	1.1641	0.6844	61.7N	43.7W	0	
01869	-29	-1216	May 25	21:23:51	29338	-39772	P	1.0766	0.8367	62.3N	150.9W	0	
01914	-28	-1198	Jun 06	03:50:59	28990	-39549	An	0.9885	0.9524	68.7N	114.3E	8	- 02m50s
01959	-27	-1180	Jun 16	10:23:42	28644	-39326	A	0.9035	0.9582	77.9N	64.7E	25	359 02m48s
02005	-26	-1162	Jun 27	16:59:29	28301	-39103	A	0.8199	0.9615	76.7N	9.0E	35	246 02m47s
02051	-25	-1144	Jul 07	23:44:20	27959	-38880	A	0.7428	0.9638	71.7N	70.1W	42	197 02m48s
02097	-24	-1126	Jul 19	06:35:40	27619	-38657	A	0.6701	0.9653	65.4N	163.2W	48	170 02m51s
02142	-23	-1108	Jul 29	13:36:42	27282	-38434	A	0.6047	0.9663	58.8N	95.4E	53	153 02m56s
02185	-22	-1090	Aug 09	20:46:57	26947	-38211	A	0.5457	0.9669	52.0N	11.1W	57	142 03m02s
02228	-21	-1072	Aug 20	04:08:47	26613	-37988	A	0.4954	0.9673	45.3N	122.2W	60	135 03m08s
02271	-20	-1054	Aug 31	11:40:38	26282	-37765	A	0.4526	0.9675	38.8N	123.2E	63	131 03m15s
02314	-19	-1036	Sep 10	19:22:54	25953	-37542	A	0.4175	0.9677	32.5N	5.5E	65	128 03m20s
02359	-18	-1018	Sep 22	03:15:47	25626	-37319	A	0.3903	0.9679	26.4N	115.2W	67	125 03m24s
02401	-17	-1000	Oct 02	11:18:35	25301	-37096	A	0.3705	0.9684	20.8N	121.5E	68	122 03m26s
02442	-16	-0982	Oct 13	19:29:50	24978	-36873	A	0.3566	0.9692	15.6N	4.0W	69	118 03m25s
02483	-15	-0964	Oct 24	03:48:35	24657	-36650	A	0.3481	0.9704	10.9N	131.2W	70	113 03m22s
02524	-14	-0946	Nov 04	12:13:23	24339	-36427	A	0.3438	0.9720	6.7N	100.3E	70	107 03m14s

02565	-13	-0928	Nov 14	20:42:26	24022	-36204	A	0.3422	0.9742	3.2N	29.2W	70	98	03m01s
02605	-12	-0910	Nov 26	05:13:06	23707	-35981	A	0.3411	0.9770	0.3N	158.8W	70	87	02m43s
02644	-11	-0892	Dec 06	13:45:10	23395	-35758	A	0.3403	0.9805	2.0S	71.3E	70	74	02m19s
02685	-10	-0874	Dec 17	22:15:39	23084	-35535	A	0.3373	0.9845	3.6S	58.0W	70	58	01m49s
02726	-09	-0856	Dec 28	06:43:18	22776	-35312	A	0.3313	0.9892	4.6S	173.6E	71	40	01m15s
02766	-08	-0837	Jan 08	15:06:00	22470	-35089	A	0.3204	0.9943	5.0S	46.4E	71	21	00m38s
02807	-07	-0819	Jan 18	23:23:51	22165	-34866	H	0.3047	1.0001	4.9S	79.4W	72	0	00m00s
02848	-06	-0801	Jan 30	07:35:26	21863	-34643	H	0.2827	1.0061	4.3S	156.3E	74	22	00m38s
02889	-05	-0783	Feb 09	15:39:19	21563	-34420	H	0.2535	1.0125	3.4S	34.1E	75	44	01m14s
02930	-04	-0765	Feb 20	23:36:23	21265	-34197	T	0.2177	1.0190	2.2S	86.3W	77	66	01m49s
02972	-03	-0747	Mar 03	07:25:55	20969	-33974	T	0.1749	1.0256	0.8S	155.3E	80	88	02m21s
03014	-02	-0729	Mar 14	15:09:18	20675	-33751	T	0.1258	1.0320	0.6N	38.6E	83	109	02m52s
03058	-01	-0711	Mar 24	22:45:09	20383	-33528	T	0.0695	1.0382	2.0N	76.1W	86	128	03m21s
03102	00	-0693	Apr 05	06:16:21	20094	-33305	T	0.0082	1.0440	3.2N	170.6E	90	147	03m49s
03147	01	-0675	Apr 15	13:41:58	19806	-33082	T	-0.0583	1.0493	4.1N	58.7E	87	164	04m17s
03192	02	-0657	Apr 26	21:04:23	19520	-32859	Tm	-0.1284	1.0540	4.4N	52.3W	83	180	04m44s
03237	03	-0639	May 07	04:23:33	19237	-32636	T	-0.2020	1.0580	3.9N	162.5W	78	195	05m10s
03283	04	-0621	May 18	11:42:11	18955	-32413	T	-0.2765	1.0613	2.7N	87.3E	74	209	05m34s
03330	05	-0603	May 28	19:00:44	18676	-32190	T	-0.3517	1.0637	0.7N	23.2W	69	222	05m54s
03377	06	-0585	Jun 09	02:19:58	18399	-31967	T	-0.4268	1.0652	2.4S	134.2W	65	235	06m10s
03425	07	-0567	Jun 19	09:42:08	18124	-31744	T	-0.4997	1.0659	6.2S	113.5E	60	248	06m17s
03471	08	-0549	Jun 30	17:07:35	17850	-31521	T	-0.5701	1.0657	10.9S	0.3W	55	261	06m16s
03516	09	-0531	Jul 11	00:38:17	17579	-31298	T	-0.6366	1.0648	16.4S	116.0W	50	275	06m05s
03561	10	-0513	Jul 22	08:14:07	17310	-31075	T	-0.6990	1.0630	22.4S	126.2E	45	289	05m44s
03606	11	-0495	Aug 01	15:57:30	17026	-30852	T	-0.7555	1.0607	29.0S	5.6E	41	304	05m17s
03650	12	-0477	Aug 12	23:48:23	16708	-30629	T	-0.8059	1.0578	35.8S	117.8W	36	321	04m46s
03694	13	-0459	Aug 23	07:46:54	16400	-30406	T	-0.8502	1.0546	42.8S	115.9E	31	341	04m14s
03737	14	-0441	Sep 03	15:54:13	16101	-30183	T	-0.8876	1.0509	49.9S	13.8W	27	366	03m41s

03781 15 -0423 Sep 14 00:09:47 15809 -29960 T -0.9186 1.0472 56.7S 147.3W 23 399 03m12s
 03823 16 -0405 Sep 25 08:34:09 15525 -29737 T -0.9423 1.0435 62.9S 74.7E 19 440 02m45s
 03865 17 -0387 Oct 05 17:04:43 15249 -29514 T -0.9612 1.0400 68.5S 68.6W 15 500 02m22s
 03907 18 -0369 Oct 17 01:43:35 14979 -29291 T -0.9735 1.0368 72.5S 142.1E 12 570 02m04s
 03946 19 -0351 Oct 27 10:27:30 14715 -29068 T -0.9819 1.0341 74.9S 13.0W 10 664 01m49s
 03986 20 -0333 Nov 07 19:16:57 14457 -28845 T -0.9860 1.0321 75.8S 169.1W 8 736 01m39s
 04027 21 -0315 Nov 18 04:08:18 14206 -28622 T -0.9887 1.0306 75.6S 35.5E 7 807 01m32s
 04068 22 -0297 Nov 29 13:02:25 13960 -28399 T -0.9892 1.0298 75.1S 117.3W 7 815 01m28s
 04108 23 -0279 Dec 09 21:55:28 13719 -28176 Ts -0.9907 1.0294 73.7S 91.4E 7 - 01m25s
 04148 24 -0261 Dec 21 06:47:13 13483 -27953 Ts -0.9933 1.0291 71.0S 56.5W 5 - 01m24s
 04189 25 -0243 Dec 31 15:35:17 13252 -27730 T- -0.9993 1.0102 65.0S 162.5E 0
 04230 26 -0224 Jan 12 00:19:29 13026 -27507 P -1.0087 0.9932 64.0S 20.6E 0
 04271 27 -0206 Jan 22 08:56:33 12804 -27284 P -1.0240 0.9651 63.2S 119.0W 0
 04312 28 -0188 Feb 02 17:27:14 12587 -27061 P -1.0444 0.9271 62.4S 103.1E 0
 04354 29 -0170 Feb 13 01:49:34 12374 -26838 P -1.0719 0.8758 61.8S 32.3W 0
 04398 30 -0152 Feb 24 10:04:50 12164 -26615 P -1.1053 0.8131 61.3S 165.9W 0
 04440 31 -0134 Mar 06 18:09:42 11959 -26392 P -1.1471 0.7342 61.0S 63.2E 0
 04483 32 -0116 Mar 17 02:07:30 11757 -26169 P -1.1943 0.6448 60.8S 65.8W 0
 04526 33 -0098 Mar 28 09:55:44 11558 -25946 P -1.2491 0.5408 60.8S 167.6E 0
 04569 34 -0080 Apr 07 17:37:49 11363 -25723 P -1.3085 0.4277 60.9S 42.6E 0
 04614 35 -0062 Apr 19 01:10:25 11171 -25500 P -1.3750 0.3011 61.2S 80.2W 0
 04659 36 -0044 Apr 29 08:38:41 10982 -25277 P -1.4445 0.1690 61.7S 158.1E 0
 04705 37 -0026 May 10 15:59:57 10795 -25054 Pe -1.5186 0.0287 62.3S 37.9E 0

SAROS SERIES

48

Saros series 48 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01586 -39 -1331 Feb 08 11:09:17 31610 -41198 Pb -1.5290 0.0163 69.1S 59.4W 0

01629 -38 -1313 Feb 19 19:12:20 31249 -40975 P -1.4916 0.0838 70.0S 165.9E 0

01673 -37 -1295 Mar 02 03:07:17 30890 -40752 P -1.4471 0.1655 70.7S 32.7E 0

01717 -36 -1277 Mar 13 10:55:17 30534 -40529 P -1.3965 0.2597 71.2S 99.2W 0

01761 -35 -1259 Mar 23 18:36:27 30179 -40306 P -1.3398 0.3669 71.6S 130.2E 0

01807 -34 -1241 Apr 04 02:12:31 29826 -40083 P -1.2781 0.4845 71.7S 0.7E 0

01852 -33 -1223 Apr 14 09:43:26 29475 -39860 P -1.2117 0.6122 71.5S 127.5W 0

01897 -32 -1205 Apr 25 17:10:35 29127 -39637 P -1.1418 0.7476 71.2S 105.6E 0

01942 -31 -1187 May 06 00:35:19 28780 -39414 P -1.0692 0.8888 70.6S 20.4W 0

01988 -30 -1169 May 17 07:59:08 28436 -39191 Ts -0.9953 1.0601 67.1S 150.8W 3 - 03m46s

02034 -29 -1151 May 27 15:21:38 28094 -38968 T -0.9200 1.0676 47.4S 76.5E 23 567 05m04s

02080 -28 -1133 Jun 07 22:45:58 27753 -38745 T -0.8458 1.0708 36.5S 42.7W 32 433 05m48s

02125 -27 -1115 Jun 18 06:11:48 27415 -38522 T -0.7726 1.0725 27.8S 159.8W 39 371 06m18s

02169 -26 -1097 Jun 29 13:42:32 27079 -38299 T -0.7034 1.0729 21.0S 83.1E 45 333 06m33s

02212 -25 -1079 Jul 09 21:15:56 26745 -38076 T -0.6363 1.0723 15.6S 33.6W 50 304 06m36s

02255 -24 -1061 Jul 21 04:56:56 26413 -37853 T -0.5753 1.0709 11.6S 151.7W 55 281 06m28s

02298 -23 -1043 Jul 31 12:43:14 26083 -37630 T -0.5187 1.0687 9.0S 89.5E 59 260 06m11s

02342 -22 -1025 Aug 11 20:38:00 25755 -37407 T -0.4692 1.0660 7.7S 31.1W 62 242 05m49s

02384 -21 -1007 Aug 22 04:39:03 25429 -37184 T -0.4251 1.0627 7.6S 153.1W 65 225 05m25s

02426 -20 -0989 Sep 02 12:49:37 25105 -36961 T -0.3889 1.0592 8.7S 82.5E 67 210 05m00s

02467 -19 -0971 Sep 12 21:07:23 24784 -36738 T -0.3588 1.0554 10.8S 43.7W 69 195 04m36s

02508 -18 -0953 Sep 24 05:32:57 24464 -36515 T -0.3353 1.0518 13.6S 171.8W 70 181 04m14s

02549 -17 -0935 Oct 04 14:05:36 24147 -36292 T -0.3180 1.0481 17.1S 58.2E 71 168 03m54s

02589 -16 -0917 Oct 15 22:45:19 23831 -36069 T -0.3072 1.0447 21.0S 73.4W 72 156 03m36s

02629 -15 -0899 Oct 26 07:30:00 23518 -35846 T -0.3004 1.0416 25.1S 154.0E 72 145 03m21s

02669 -14 -0881 Nov 06 16:17:53 23207 -35623 T -0.2968 1.0389 29.2S 21.0E 73 136 03m08s

02710 -13 -0863 Nov 17 01:08:32 22897 -35400 T -0.2959 1.0367 33.1S 112.1W 73 129 02m58s

02750 -12 -0845 Nov 28 10:00:06 22590 -35177 T -0.2963 1.0350 36.4S 115.3E 73 123 02m51s

02790 -11 -0827 Dec 08 18:50:11 22285 -34954 T -0.2960 1.0338 39.0S 16.2W 73 119 02m47s

02831 -10 -0809 Dec 20 03:37:52 21982 -34731 T -0.2942 1.0331 40.5S 146.4W 73 117 02m45s

02872 -09 -0791 Dec 30 12:21:11 21681 -34508 T -0.2892 1.0328 40.7S 84.7E 73 116 02m46s

02913 -08 -0772 Jan 10 20:59:12 21382 -34285 T -0.2803 1.0329 39.6S 42.9W 74 116 02m49s

02955 -07 -0754 Jan 21 05:29:27 21086 -34062 T -0.2655 1.0333 37.2S 169.2W 74 116 02m54s

02997 -06 -0736 Feb 01 13:52:44 20791 -33839 T -0.2453 1.0339 33.5S 65.4E 76 118 03m01s

03041 -05 -0718 Feb 11 22:07:07 20498 -33616 T -0.2186 1.0345 28.8S 58.7W 77 119 03m08s

03085 -04 -0700 Feb 23 06:12:09 20208 -33393 T -0.1843 1.0352 23.2S 178.5E 79 121 03m16s

03130 -03 -0682 Mar 05 14:07:49 19919 -33170 T -0.1429 1.0356 16.8S 57.4E 82 121 03m23s

03175 -02 -0664 Mar 15 21:54:36 19633 -32947 Tm -0.0946 1.0359 10.0S 62.1W 85 121 03m28s

03220 -01 -0646 Mar 27 05:32:40 19349 -32724 T -0.0399 1.0356 2.6S 179.8W 88 120 03m29s

03265 00 -0628 Apr 06 13:01:12 19066 -32501 T 0.0221 1.0349 5.0N 64.7E 89 118 03m26s

03311 01 -0610 Apr 17 20:23:07 18786 -32278 T 0.0887 1.0336 12.9N 49.2W 85 114 03m18s

03358 02 -0592 Apr 28 03:37:40 18508 -32055 T 0.1609 1.0317 20.8N 160.9W 81 109 03m05s

03406	03	-0574	May 09	10:47:35	18232	-31832	T	0.2358	1.0291	28.7N	89.0E	76	101	02m46s
03453	04	-0556	May 19	17:51:44	17958	-31609	T	0.3145	1.0258	36.6N	19.0W	71	92	02m22s
03498	05	-0538	May 31	00:54:35	17686	-31386	T	0.3934	1.0218	44.0N	125.4W	67	81	01m55s
03543	06	-0520	Jun 10	07:54:41	17416	-31163	T	0.4737	1.0170	51.0N	130.6E	61	66	01m26s
03588	07	-0502	Jun 21	14:54:51	17148	-30940	H	0.5529	1.0116	57.3N	28.9E	56	48	00m56s
03633	08	-0484	Jul 01	21:55:42	16832	-30717	H	0.6304	1.0055	62.5N	69.9W	51	25	00m25s
03676	09	-0466	Jul 13	04:59:52	16521	-30494	A	0.7042	0.9989	66.2N	165.8W	45	5	00m05s
03720	10	-0448	Jul 23	12:07:49	16218	-30271	A	0.7738	0.9918	68.0N	100.3E	39	45	00m35s
03764	11	-0430	Aug 03	19:20:15	15923	-30048	A	0.8388	0.9843	68.0N	5.9E	33	102	01m04s
03806	12	-0412	Aug 14	02:39:14	15636	-29825	A	0.8974	0.9765	66.7N	91.5W	26	190	01m34s
03848	13	-0394	Aug 25	10:04:55	15357	-29602	A	0.9496	0.9682	64.9N	169.0E	18	369	02m04s
03890	14	-0376	Sep 04	17:37:31	15084	-29379	An	0.9951	0.9584	62.2N	77.3E	4	-	02m34s
03931	15	-0358	Sep 16	01:17:33	14818	-29156	P	1.0334	0.9131	60.7N	39.7W	0		
03970	16	-0340	Sep 26	09:05:02	14558	-28933	P	1.0650	0.8560	60.6N	166.3W	0		
04011	17	-0322	Oct 07	16:59:55	14304	-28710	P	1.0895	0.8118	60.7N	65.3E	0		
04052	18	-0304	Oct 18	00:59:44	14056	-28487	P	1.1092	0.7764	60.9N	64.3W	0		
04093	19	-0286	Oct 29	09:06:06	13813	-28264	P	1.1226	0.7523	61.3N	164.4E	0		
04133	20	-0268	Nov 08	17:15:46	13575	-28041	P	1.1322	0.7349	61.9N	32.2E	0		
04173	21	-0250	Nov 20	01:28:50	13343	-27818	P	1.1388	0.7230	62.6N	101.1W	0		
04214	22	-0232	Nov 30	09:40:44	13115	-27595	P	1.1455	0.7110	63.4N	125.8E	0		
04254	23	-0214	Dec 11	17:53:27	12891	-27372	P	1.1509	0.7015	64.4N	7.9W	0		
04295	24	-0196	Dec 22	02:02:20	12672	-27149	P	1.1585	0.6883	65.4N	140.9W	0		
04337	25	-0177	Jan 02	10:07:17	12457	-26926	P	1.1687	0.6709	66.5N	86.6E	0		
04380	26	-0159	Jan 12	18:05:07	12246	-26703	P	1.1839	0.6453	67.6N	44.7W	0		
04423	27	-0141	Jan 24	01:56:29	12039	-26480	P	1.2040	0.6116	68.7N	174.8W	0		
04466	28	-0123	Feb 03	09:38:33	11836	-26257	P	1.2307	0.5665	69.7N	56.7E	0		
04509	29	-0105	Feb 14	17:11:14	11636	-26034	P	1.2643	0.5099	70.5N	70.0W	0		
04552	30	-0087	Feb 25	00:33:44	11440	-25811	P	1.3053	0.4406	71.2N	165.3E	0		

04596 31 -0069 Mar 08 07:46:43 11247 -25588 P 1.3531 0.3595 71.7N 42.5E 0

04641 32 -0051 Mar 18 14:48:25 11056 -25365 P 1.4092 0.2640 71.9N 77.8W 0

04686 33 -0033 Mar 29 21:41:30 10869 -25142 P 1.4714 0.1577 71.8N 164.1E 0

04733 34 -0015 Apr 09 04:25:09 10684 -24919 Pe 1.5403 0.0397 71.6N 48.5E 0

SAROS SERIES

49

Saros series 49 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01789 -36 -1248 Feb 22 01:19:20 29965 -40171 Pb 1.5180 0.0493 61.8N 131.1W 0

01834 -35 -1230 Mar 04 09:02:14 29613 -39948 P 1.4798 0.1189 61.3N 102.7E 0

01879 -34 -1212 Mar 14 16:33:47 29264 -39725 P 1.4331 0.2040 61.0N 20.5W 0

01924 -33 -1194 Mar 25 23:56:37 28917 -39502 P 1.3801 0.3006 60.8N 141.4W 0

01969 -32 -1176 Apr 05 07:09:46 28571 -39279 P 1.3203 0.4096 60.7N 100.1E 0

02016 -31 -1158 Apr 16 14:16:12 28228 -39056 P 1.2557 0.5268 60.8N 16.6W 0

02062	-30	-1140	Apr 26	21:15:19	27887	-38833	P	1.1859	0.6532	61.1N	131.6W	0
02107	-29	-1122	May 08	04:08:41	27548	-38610	P	1.1121	0.7859	61.5N	114.7E	0
02152	-28	-1104	May 18	10:58:05	27211	-38387	P	1.0360	0.9221	62.0N	2.0E	0
02195	-27	-1086	May 29	17:44:39	26876	-38164	A	0.9583	0.9840	71.3N	74.5W	16 204 00m58s
02238	-26	-1068	Jun 09	00:29:44	26543	-37941	A	0.8802	0.9831	74.7N	142.1W	28 127 01m07s
02281	-25	-1050	Jun 20	07:15:06	26213	-37718	A	0.8029	0.9806	73.7N	144.7E	36 116 01m22s
02324	-24	-1032	Jun 30	14:02:38	25884	-37495	A	0.7281	0.9772	70.0N	61.5E	43 119 01m44s
02367	-23	-1014	Jul 11	20:53:54	25557	-37272	A	0.6573	0.9731	64.9N	30.9W	49 129 02m11s
02409	-22	-0996	Jul 22	03:48:45	25233	-37049	A	0.5900	0.9685	58.9N	129.3W	54 141 02m45s
02450	-21	-0978	Aug 02	10:50:28	24910	-36826	A	0.5291	0.9636	52.6N	127.3E	58 156 03m24s
02491	-20	-0960	Aug 12	17:58:00	24590	-36603	A	0.4738	0.9584	46.0N	20.5E	61 172 04m07s
02532	-19	-0942	Aug 24	01:14:02	24272	-36380	A	0.4261	0.9533	39.5N	89.6W	65 189 04m54s
02573	-18	-0924	Sep 03	08:36:30	23956	-36157	A	0.3843	0.9480	33.0N	158.0E	67 206 05m44s
02613	-17	-0906	Sep 14	16:08:17	23641	-35934	A	0.3512	0.9431	26.8N	42.8E	69 224 06m33s
02653	-16	-0888	Sep 24	23:47:00	23329	-35711	A	0.3243	0.9383	20.8N	74.4W	71 241 07m23s
02694	-15	-0870	Oct 06	07:33:24	23019	-35488	A	0.3044	0.9341	15.2N	166.4E	72 257 08m11s
02735	-14	-0852	Oct 16	15:26:05	22711	-35265	A	0.2902	0.9302	10.1N	45.8E	73 272 08m58s
02774	-13	-0834	Oct 27	23:24:23	22405	-35042	A	0.2810	0.9270	5.4N	76.1W	74 285 09m41s
02815	-12	-0816	Nov 07	07:26:32	22102	-34819	A	0.2757	0.9244	1.3N	161.3E	74 296 10m21s
02856	-11	-0798	Nov 18	15:30:01	21800	-34596	A	0.2717	0.9225	2.2S	38.6E	74 304 10m53s
02897	-10	-0780	Nov 28	23:34:55	21500	-34373	A	0.2693	0.9212	5.0S	84.3W	74 310 11m17s
02938	-09	-0762	Dec 10	07:38:16	21203	-34150	A	0.2654	0.9206	7.1S	153.5E	75 312 11m29s
02980	-08	-0744	Dec 20	15:38:37	20907	-33927	A	0.2595	0.9207	8.6S	32.2E	75 311 11m26s
03023	-07	-0726	Dec 31	23:33:25	20614	-33704	A	0.2491	0.9215	9.5S	87.6W	76 306 11m10s
03068	-06	-0707	Jan 11	07:22:27	20322	-33481	A	0.2340	0.9229	9.8S	154.2E	77 299 10m42s
03112	-05	-0689	Jan 22	15:04:06	20033	-33258	A	0.2127	0.9248	9.6S	37.9E	78 290 10m05s
03157	-04	-0671	Feb 01	22:36:20	19746	-33035	A	0.1837	0.9271	9.0S	76.0W	79 278 09m24s
03202	-03	-0653	Feb 13	05:59:48	19460	-32812	A	0.1475	0.9298	8.1S	172.4E	82 266 08m43s

03247 -02 -0635 Feb 23 13:13:23 19177 -32589 A 0.1032 0.9326 7.0S 63.3E 84 253 08m05s

03293 -01 -0617 Mar 06 20:17:43 18896 -32366 A 0.0513 0.9357 5.7S 43.3W 87 240 07m30s

03340 00 -0599 Mar 17 03:12:05 18617 -32143 Am -0.0090 0.9387 4.6S 147.3W 89 227 07m01s

03387 01 -0581 Mar 28 09:58:33 18341 -31920 A -0.0757 0.9417 3.7S 110.8E 86 216 06m37s

03434 02 -0563 Apr 07 16:37:26 18066 -31697 A -0.1488 0.9445 3.2S 10.9E 81 207 06m20s

03480 03 -0545 Apr 18 23:09:10 17793 -31474 A -0.2280 0.9470 3.3S 87.2W 77 199 06m07s

03525 04 -0527 Apr 29 05:36:29 17522 -31251 A -0.3108 0.9492 4.1S 175.7E 72 195 06m01s

03570 05 -0509 May 10 12:00:03 17254 -31028 A -0.3967 0.9510 5.8S 79.4E 67 194 05m57s

03615 06 -0491 May 20 18:22:59 16958 -30805 A -0.4836 0.9522 8.6S 17.2W 61 197 05m58s

03660 07 -0473 Jun 01 00:43:55 16643 -30582 A -0.5724 0.9530 12.6S 113.8W 55 207 05m59s

03704 08 -0455 Jun 11 07:08:11 16336 -30359 A -0.6586 0.9531 17.7S 148.1E 49 226 05m58s

03747 09 -0437 Jun 22 13:34:11 16039 -30136 A -0.7436 0.9527 24.2S 48.9E 42 258 05m53s

03790 10 -0419 Jul 02 20:06:15 15749 -29913 A -0.8239 0.9517 31.9S 52.8W 34 312 05m43s

03832 11 -0401 Jul 14 02:42:55 15466 -29690 A -0.9009 0.9499 41.7S 157.1W 25 427 05m26s

03874 12 -0383 Jul 24 09:29:05 15191 -29467 A -0.9706 0.9468 55.1S 93.1E 13 844 05m02s

03915 13 -0365 Aug 04 16:22:57 14922 -29244 P -1.0341 0.9075 69.1S 28.1W 0

03954 14 -0347 Aug 14 23:26:34 14660 -29021 P -1.0902 0.8105 70.0S 147.4W 0

03994 15 -0329 Aug 26 06:39:50 14404 -28798 P -1.1389 0.7263 70.7S 90.3E 0

04035 16 -0311 Sep 05 14:04:12 14153 -28575 P -1.1791 0.6569 71.3S 35.3W 0

04077 17 -0293 Sep 16 21:38:41 13908 -28352 P -1.2116 0.6008 71.7S 163.8W 0

04117 18 -0275 Sep 27 05:23:15 13669 -28129 P -1.2366 0.5576 71.8S 64.9E 0

04157 19 -0257 Oct 08 13:17:29 13434 -27906 P -1.2544 0.5270 71.7S 68.8W 0

04198 20 -0239 Oct 18 21:21:02 13204 -27683 P -1.2656 0.5077 71.3S 155.4E 0

04239 21 -0221 Oct 30 05:31:21 12979 -27460 P -1.2721 0.4966 70.7S 18.3E 0

04280 22 -0203 Nov 09 13:48:43 12758 -27237 P -1.2738 0.4937 69.9S 119.9W 0

04321 23 -0185 Nov 20 22:09:44 12542 -27014 P -1.2734 0.4944 69.0S 101.6E 0

04364 24 -0167 Dec 01 06:34:42 12329 -26791 P -1.2707 0.4992 67.9S 37.2W 0

04407 25 -0149 Dec 12 14:58:47 12121 -26568 P -1.2695 0.5013 66.9S 175.2W 0

04450	26	-0131	Dec 22	23:24:08	11916	-26345	P	-1.2683	0.5036	65.8S	47.1E	0
04493	27	-0112	Jan 03	07:45:39	11715	-26122	P	-1.2712	0.4985	64.8S	89.3W	0
04536	28	-0094	Jan 13	16:04:15	11517	-25899	P	-1.2771	0.4883	63.8S	135.5E	0
04579	29	-0076	Jan 25	00:16:04	11323	-25676	P	-1.2891	0.4668	63.0S	2.4E	0
04624	30	-0058	Feb 04	08:23:05	11131	-25453	P	-1.3058	0.4370	62.3S	129.4W	0
04669	31	-0040	Feb 15	16:22:41	10942	-25230	P	-1.3294	0.3942	61.7S	101.0E	0
04715	32	-0022	Feb 26	00:15:02	10756	-25007	P	-1.3595	0.3393	61.3S	26.7W	0
04761	33	-0004	Mar 08	07:59:58	10573	-24784	P	-1.3963	0.2713	61.0S	152.5W	0
04806	34	0014	Mar 19	15:38:24	10391	-24561	P	-1.4389	0.1919	60.9S	83.4E	0
04852	35	0032	Mar 29	23:10:01	10212	-24338	Pe	-1.4877	0.1002	61.0S	39.0W	0

SAROS SERIES

50

Saros series 50 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL		
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.		
						GREATEST								°	km
ECLIPSE															

01906 -35 -1201 Feb 11 18:52:54 29054 -39590 Pb -1.5351 0.0540 69.5S 170.1E 0
 01951 -34 -1183 Feb 22 02:06:01 28708 -39367 P -1.4909 0.1267 70.3S 47.7E 0
 01997 -33 -1165 Mar 05 09:07:32 28364 -39144 P -1.4370 0.2165 71.0S 72.2W 0
 02043 -32 -1147 Mar 15 16:03:24 28022 -38921 P -1.3779 0.3161 71.5S 168.7E 0
 02089 -31 -1129 Mar 26 22:49:48 27682 -38698 P -1.3101 0.4314 71.8S 51.8E 0
 02134 -30 -1111 Apr 06 05:31:29 27344 -38475 P -1.2378 0.5555 71.8S 64.1W 0
 02178 -29 -1093 Apr 17 12:06:21 27008 -38252 P -1.1588 0.6923 71.6S 178.2W 0
 02221 -28 -1075 Apr 27 18:39:41 26675 -38029 P -1.0776 0.8341 71.1S 68.5E 0
 02264 -27 -1057 May 09 01:09:50 26343 -37806 As -0.9924 0.9527 66.3S 53.3W 5 - 03m47s
 02307 -26 -1039 May 19 07:39:42 26014 -37583 A -0.9059 0.9606 46.8S 174.0W 25 338 03m54s
 02351 -25 -1021 May 30 14:10:31 25686 -37360 A -0.8187 0.9655 34.9S 79.7E 35 217 03m49s
 02393 -24 -1003 Jun 09 20:44:45 25361 -37137 A -0.7329 0.9694 25.3S 24.6W 43 162 03m38s
 02434 -23 -0985 Jun 21 03:23:23 25037 -36914 A -0.6495 0.9724 17.4S 128.6W 49 130 03m25s
 02475 -22 -0967 Jul 01 10:07:18 24716 -36691 A -0.5693 0.9748 10.9S 127.1E 55 110 03m09s
 02516 -21 -0949 Jul 12 16:59:24 24397 -36468 A -0.4944 0.9765 5.8S 21.6E 60 96 02m54s
 02557 -20 -0931 Jul 22 23:59:33 24080 -36245 A -0.4248 0.9778 2.1S 85.4W 65 87 02m41s
 02597 -19 -0913 Aug 03 07:08:24 23765 -36022 A -0.3615 0.9786 0.2N 166.0E 69 81 02m29s
 02637 -18 -0895 Aug 13 14:27:09 23452 -35799 A -0.3054 0.9792 1.2N 55.1E 72 78 02m19s
 02678 -17 -0877 Aug 24 21:56:33 23141 -35576 A -0.2573 0.9795 0.9N 58.3W 75 75 02m12s
 02719 -16 -0859 Sep 04 05:36:46 22833 -35353 A -0.2170 0.9797 0.4S 174.5W 77 74 02m07s
 02759 -15 -0841 Sep 15 13:26:13 22526 -35130 A -0.1834 0.9799 2.7S 66.9E 79 73 02m02s
 02799 -14 -0823 Sep 25 21:26:40 22221 -34907 A -0.1582 0.9802 5.7S 54.7W 81 71 01m58s
 02840 -13 -0805 Oct 07 05:36:11 21919 -34684 A -0.1398 0.9808 9.2S 178.5W 82 69 01m53s
 02881 -12 -0787 Oct 17 13:53:58 21618 -34461 A -0.1274 0.9817 13.1S 55.6E 83 65 01m47s
 02922 -11 -0769 Oct 28 22:18:09 21320 -34238 A -0.1195 0.9829 17.0S 71.8W 83 61 01m40s
 02963 -10 -0751 Nov 08 06:48:08 21023 -34015 A -0.1155 0.9848 20.8S 159.7E 83 54 01m29s
 03005 -09 -0733 Nov 19 15:22:07 20729 -33792 A -0.1140 0.9871 24.2S 30.7E 83 46 01m16s
 03049 -08 -0715 Nov 29 23:57:18 20437 -33569 A -0.1130 0.9900 27.0S 98.2W 83 35 00m59s

03094 -07 -0697 Dec 11 08:33:44 20147 -33346 A -0.1121 0.9935 29.0S 133.0E 83 23 00m39s
 03139 -06 -0679 Dec 21 17:07:55 19859 -33123 A -0.1090 0.9977 30.0S 5.2E 84 8 00m14s
 03184 -05 -0660 Jan 02 01:39:34 19573 -32900 H -0.1028 1.0023 29.7S 121.9W 84 8 00m14s
 03229 -04 -0642 Jan 12 10:05:24 19289 -32677 H -0.0912 1.0075 28.2S 112.2E 85 26 00m45s
 03275 -03 -0624 Jan 23 18:26:58 19007 -32454 H -0.0754 1.0131 25.5S 13.1W 86 45 01m18s
 03321 -02 -0606 Feb 03 02:41:26 18727 -32231 T -0.0533 1.0190 21.7S 137.2W 87 65 01m53s
 03368 -01 -0588 Feb 14 10:48:38 18450 -32008 T -0.0244 1.0251 16.8S 99.7E 88 85 02m29s
 03416 00 -0570 Feb 24 18:48:18 18174 -31785 T 0.0115 1.0313 11.2S 22.2W 89 106 03m04s
 03462 01 -0552 Mar 07 02:40:48 17900 -31562 Tm 0.0541 1.0374 4.8S 142.8W 87 126 03m38s
 03507 02 -0534 Mar 18 10:26:34 17629 -31339 T 0.1029 1.0433 2.1N 97.8E 84 145 04m08s
 03552 03 -0516 Mar 28 18:05:08 17360 -31116 T 0.1583 1.0489 9.5N 20.1W 81 164 04m34s
 03597 04 -0498 Apr 09 01:38:45 17085 -30893 T 0.2186 1.0540 17.1N 136.8W 77 183 04m54s
 03642 05 -0480 Apr 19 09:07:31 16766 -30670 T 0.2839 1.0585 25.0N 107.5E 73 201 05m07s
 03686 06 -0462 Apr 30 16:32:38 16456 -30447 T 0.3529 1.0624 32.9N 6.8W 69 218 05m13s
 03730 07 -0444 May 10 23:55:15 16155 -30224 T 0.4247 1.0654 40.9N 120.0W 65 236 05m11s
 03774 08 -0426 May 22 07:16:55 15862 -30001 T 0.4979 1.0676 48.7N 128.2E 60 255 05m04s
 03816 09 -0408 Jun 01 14:38:54 15577 -29778 T 0.5714 1.0689 56.3N 18.0E 55 274 04m51s
 03858 10 -0390 Jun 12 22:01:00 15299 -29555 T 0.6452 1.0693 63.4N 89.3W 50 297 04m35s
 03900 11 -0372 Jun 23 05:26:41 15028 -29332 T 0.7165 1.0686 69.5N 167.3E 44 323 04m17s
 03939 12 -0354 Jul 04 12:55:08 14763 -29109 T 0.7859 1.0671 74.1N 71.5E 38 357 03m58s
 03978 13 -0336 Jul 14 20:29:37 14504 -28886 T 0.8505 1.0646 75.8N 17.3W 31 405 03m38s
 04019 14 -0318 Jul 26 04:08:04 14252 -28663 T 0.9118 1.0610 74.2N 105.6W 24 494 03m17s
 04060 15 -0300 Aug 05 11:55:06 14004 -28440 T 0.9664 1.0562 69.9N 159.6E 14 748 02m52s
 04101 16 -0282 Aug 16 19:47:49 13763 -28217 P 1.0166 0.9877 61.9N 62.2E 0
 04141 17 -0264 Aug 27 03:49:10 13526 -27994 P 1.0597 0.9038 61.4N 68.0W 0
 04181 18 -0246 Sep 07 11:57:32 13294 -27771 P 1.0974 0.8308 61.0N 160.1E 0
 04222 19 -0228 Sep 17 20:15:24 13067 -27548 P 1.1272 0.7730 60.8N 26.0E 0
 04263 20 -0210 Sep 29 04:40:21 12845 -27325 P 1.1518 0.7256 60.8N 109.9W 0

04304	21	-0192	Oct 09	13:12:43	12626	-27102	P	1.1705	0.6895	60.9N	112.5E	0
04346	22	-0174	Oct 20	21:51:48	12413	-26879	P	1.1840	0.6635	61.2N	26.9W	0
04390	23	-0156	Oct 31	06:37:13	12202	-26656	P	1.1922	0.6476	61.6N	168.0W	0
04432	24	-0138	Nov 11	15:26:07	11996	-26433	P	1.1981	0.6362	62.2N	50.0E	0
04475	25	-0120	Nov 22	00:18:07	11794	-26210	P	1.2013	0.6299	62.9N	93.0W	0
04518	26	-0102	Dec 03	09:10:52	11595	-25987	P	1.2041	0.6244	63.8N	123.6E	0
04561	27	-0084	Dec 13	18:04:07	11399	-25764	P	1.2064	0.6199	64.8N	20.2W	0
04606	28	-0066	Dec 25	02:53:42	11206	-25541	P	1.2115	0.6103	65.8N	163.5W	0
04651	29	-0047	Jan 04	11:41:07	11016	-25318	P	1.2182	0.5976	66.9N	53.3E	0
04696	30	-0029	Jan 15	20:21:59	10829	-25095	P	1.2300	0.5754	68.0N	88.8W	0
04743	31	-0011	Jan 26	04:57:33	10645	-24872	P	1.2460	0.5453	69.0N	129.8E	0
04788	32	0007	Feb 06	13:24:00	10463	-24649	P	1.2693	0.5016	69.9N	9.8W	0
04834	33	0025	Feb 16	21:44:01	10283	-24426	P	1.2974	0.4485	70.7N	148.5W	0
04880	34	0043	Feb 28	05:54:27	10104	-24203	P	1.3329	0.3816	71.3N	74.7E	0
04925	35	0061	Mar 10	13:56:24	9928	-23980	P	1.3751	0.3017	71.7N	60.3W	0
04969	36	0079	Mar 21	21:49:07	9753	-23757	P	1.4245	0.2084	71.8N	166.7E	0
05014	37	0097	Apr 01	05:33:53	9579	-23534	Pe	1.4800	0.1036	71.7N	35.7E	0

SAROS SERIES

Saros series 51 contains 85 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01411	-49	-1407	Sep 02	23:13:08	33143	-42131	Pb	1.5266	0.0355	70.5N	100.0E	0	
01452	-48	-1389	Sep 14	07:18:31	32774	-41908	P	1.4962	0.0905	71.2N	36.4W	0	
01494	-47	-1371	Sep 24	15:32:49	32406	-41685	P	1.4723	0.1337	71.5N	175.4W	0	
01536	-46	-1353	Oct 05	23:56:17	32040	-41462	P	1.4553	0.1643	71.7N	43.1E	0	
01578	-45	-1335	Oct 16	08:25:36	31677	-41239	P	1.4425	0.1872	71.5N	100.0W	0	
01621	-44	-1317	Oct 27	17:02:30	31316	-41016	P	1.4354	0.1999	71.1N	115.3E	0	
01665	-43	-1299	Nov 07	01:43:03	30956	-40793	P	1.4304	0.2084	70.5N	29.8W	0	
01709	-42	-1281	Nov 18	10:27:10	30599	-40570	P	1.4278	0.2125	69.7N	175.3W	0	
01753	-41	-1263	Nov 28	19:11:33	30244	-40347	P	1.4249	0.2172	68.8N	39.9E	0	
01799	-40	-1245	Dec 10	03:56:17	29891	-40124	P	1.4217	0.2222	67.7N	104.4W	0	
01844	-39	-1227	Dec 20	12:37:49	29540	-39901	P	1.4155	0.2325	66.7N	112.7E	0	
01889	-38	-1209	Dec 31	21:15:47	29191	-39678	P	1.4060	0.2491	65.6N	28.8W	0	
01934	-37	-1190	Jan 11	05:48:19	28844	-39455	P	1.3915	0.2749	64.6N	168.4W	0	
01979	-36	-1172	Jan 22	14:15:18	28499	-39232	P	1.3721	0.3102	63.6N	53.7E	0	
02026	-35	-1154	Feb 01	22:33:56	28156	-39009	P	1.3456	0.3590	62.8N	81.8W	0	
02072	-34	-1136	Feb 13	06:45:54	27816	-38786	P	1.3134	0.4191	62.1N	144.6E	0	
02117	-33	-1118	Feb 23	14:49:11	27477	-38563	P	1.2737	0.4938	61.5N	13.4E	0	
02162	-32	-1100	Mar 05	22:46:35	27140	-38340	P	1.2287	0.5796	61.1N	116.3W	0	
02205	-31	-1082	Mar 17	06:34:24	26806	-38117	P	1.1755	0.6818	60.8N	116.6E	0	
02248	-30	-1064	Mar 27	14:17:50	26474	-37894	P	1.1183	0.7925	60.7N	9.4W	0	
02291	-29	-1046	Apr 07	21:53:43	26143	-37671	P	1.0545	0.9165	60.7N	133.4W	0	

02335 -28 -1028 Apr 18 05:26:57 25815 -37448 Tn 0.9880 1.0591 62.0N 119.4E 8 - 03m08s

02377 -27 -1010 Apr 29 12:54:08 25489 -37225 T 0.9161 1.0666 61.8N 30.9E 23 541 03m47s

02419 -26 -0992 May 09 20:20:56 25165 -37002 T 0.8433 1.0712 61.6N 69.6W 32 429 04m12s

02459 -25 -0974 May 21 03:44:46 24843 -36779 T 0.7680 1.0744 61.3N 171.1W 40 375 04m32s

02500 -24 -0956 May 31 11:09:40 24523 -36556 T 0.6932 1.0765 60.5N 86.4E 46 343 04m49s

02541 -23 -0938 Jun 11 18:34:31 24205 -36333 T 0.6183 1.0773 58.7N 16.9W 52 318 05m04s

02581 -22 -0920 Jun 22 02:03:01 23889 -36110 T 0.5464 1.0772 56.1N 122.5W 57 299 05m17s

02621 -21 -0902 Jul 03 09:34:32 23575 -35887 T 0.4771 1.0761 52.4N 129.5E 61 281 05m26s

02661 -20 -0884 Jul 13 17:10:32 23264 -35664 T 0.4117 1.0743 47.9N 18.5E 65 265 05m33s

02702 -19 -0866 Jul 25 00:52:06 22954 -35441 T 0.3514 1.0716 42.7N 95.4W 69 249 05m35s

02743 -18 -0848 Aug 04 08:40:00 22647 -35218 T 0.2968 1.0684 37.2N 147.8E 73 234 05m33s

02783 -17 -0830 Aug 15 16:35:06 22341 -34995 T 0.2484 1.0646 31.4N 28.3E 75 218 05m25s

02824 -16 -0812 Aug 26 00:37:15 22038 -34772 T 0.2064 1.0605 25.4N 93.8W 78 203 05m13s

02865 -15 -0794 Sep 06 08:47:51 21737 -34549 T 0.1718 1.0561 19.5N 141.6E 80 188 04m57s

02906 -14 -0776 Sep 16 17:06:09 21437 -34326 T 0.1441 1.0517 13.7N 14.8E 82 173 04m39s

02947 -13 -0758 Sep 28 01:31:40 21140 -34103 T 0.1228 1.0474 8.1N 113.9W 83 159 04m20s

02989 -12 -0740 Oct 08 10:04:20 20845 -33880 T 0.1077 1.0432 2.8N 115.7E 84 145 04m01s

03033 -11 -0722 Oct 19 18:43:18 20552 -33657 T 0.0980 1.0393 2.1S 16.1W 84 132 03m42s

03077 -10 -0704 Oct 30 03:27:08 20261 -33434 T 0.0929 1.0359 6.6S 148.8W 85 121 03m26s

03121 -09 -0686 Nov 10 12:13:53 19972 -33211 T 0.0905 1.0328 10.4S 78.0E 85 111 03m10s

03166 -08 -0668 Nov 20 21:03:00 19685 -32988 T 0.0904 1.0303 13.6S 55.3W 85 103 02m58s

03211 -07 -0650 Dec 02 05:52:53 19401 -32765 Tm 0.0911 1.0282 16.1S 171.4E 85 96 02m47s

03256 -06 -0632 Dec 12 14:40:33 19118 -32542 T 0.0904 1.0267 17.8S 39.0E 85 91 02m39s

03303 -05 -0614 Dec 23 23:25:35 18837 -32319 T 0.0880 1.0256 18.8S 92.5W 85 87 02m32s

03350 -04 -0595 Jan 03 08:05:12 18559 -32096 T 0.0815 1.0251 19.1S 137.3E 85 86 02m28s

03397 -03 -0577 Jan 14 16:39:43 18282 -31873 T 0.0713 1.0248 18.6S 8.5E 86 84 02m24s

03444 -02 -0559 Jan 25 01:05:11 18008 -31650 T 0.0540 1.0248 17.7S 118.1W 87 85 02m22s

03489 -01 -0541 Feb 05 09:23:58 17736 -31427 T 0.0317 1.0250 16.3S 116.8E 88 85 02m20s

03534 00 -0523 Feb 15 17:32:29 17466 -31204 T 0.0013 1.0252 14.6S 5.8W 90 86 02m19s
 03579 01 -0505 Feb 27 01:32:20 17197 -30981 T -0.0357 1.0254 12.7S 126.3W 88 86 02m18s
 03624 02 -0487 Mar 09 09:21:28 16891 -30758 T -0.0810 1.0253 10.9S 115.8E 85 86 02m17s
 03668 03 -0469 Mar 20 17:02:24 16577 -30535 T -0.1325 1.0250 9.2S 0.2W 82 86 02m15s
 03712 04 -0451 Mar 31 00:33:55 16273 -30312 T -0.1914 1.0243 7.9S 113.8W 79 84 02m12s
 03756 05 -0433 Apr 11 07:56:43 15977 -30089 T -0.2567 1.0230 7.2S 134.9E 75 81 02m07s
 03799 06 -0415 Apr 21 15:12:09 15689 -29866 T -0.3272 1.0211 7.1S 25.5E 71 76 02m00s
 03841 07 -0397 May 02 22:21:16 15408 -29643 T -0.4020 1.0186 7.9S 82.5W 66 69 01m49s
 03883 08 -0379 May 13 05:25:04 15134 -29420 H3 -0.4803 1.0155 9.8S 170.7E 61 60 01m34s
 03924 09 -0361 May 24 12:23:59 14867 -29197 H -0.5616 1.0115 12.8S 64.9E 56 47 01m12s
 03963 10 -0343 Jun 03 19:20:33 14606 -28974 H -0.6437 1.0069 17.1S 40.9W 50 31 00m44s
 04003 11 -0325 Jun 15 02:15:43 14351 -28751 H -0.7254 1.0014 22.7S 146.9W 43 7 00m09s
 04044 12 -0307 Jun 25 09:10:15 14101 -28528 A -0.8063 0.9953 29.9S 106.4E 36 28 00m30s
 04085 13 -0289 Jul 06 16:06:35 13857 -28305 A -0.8846 0.9881 39.0S 1.9W 27 90 01m11s
 04125 14 -0271 Jul 16 23:05:36 13619 -28082 A -0.9592 0.9798 51.7S 113.2W 16 261 01m49s
 04165 15 -0253 Jul 28 06:09:43 13385 -27859 P -1.0284 0.9293 68.5S 125.9E 0
 04206 16 -0235 Aug 07 13:17:17 13156 -27636 P -1.0935 0.8117 69.5S 6.2E 0
 04247 17 -0217 Aug 18 20:32:33 12932 -27413 P -1.1510 0.7089 70.3S 116.1W 0
 04288 18 -0199 Aug 29 03:53:28 12712 -27190 P -1.2029 0.6171 71.0S 119.6E 0
 04330 19 -0181 Sep 09 11:23:18 12496 -26967 P -1.2466 0.5407 71.6S 7.4W 0
 04373 20 -0163 Sep 19 18:59:07 12285 -26744 P -1.2845 0.4752 71.9S 136.3W 0
 04416 21 -0145 Oct 01 02:44:19 12077 -26521 P -1.3139 0.4249 71.9S 92.3E 0
 04459 22 -0127 Oct 11 10:35:28 11873 -26298 P -1.3377 0.3849 71.7S 40.5W 0
 04502 23 -0109 Oct 22 18:33:27 11673 -26075 P -1.3552 0.3557 71.2S 174.7W 0
 04545 24 -0091 Nov 02 02:35:52 11476 -25852 P -1.3683 0.3341 70.5S 50.5E 0
 04589 25 -0073 Nov 13 10:43:12 11282 -25629 P -1.3771 0.3199 69.6S 84.9W 0
 04634 26 -0055 Nov 23 18:51:48 11091 -25406 P -1.3840 0.3090 68.6S 140.0E 0
 04679 27 -0037 Dec 05 03:00:55 10903 -25183 P -1.3899 0.2996 67.5S 5.5E 0

04725 28 -0019 Dec 15 11:08:27 10717 -24960 P -1.3965 0.2890 66.5S 128.0W 0
04771 29 -0001 Dec 26 19:13:58 10534 -24737 P -1.4044 0.2759 65.4S 99.5E 0
04816 30 0018 Jan 06 03:13:06 10353 -24514 P -1.4168 0.2553 64.4S 30.9W 0
04862 31 0036 Jan 17 11:06:51 10174 -24291 P -1.4329 0.2281 63.4S 159.7W 0
04907 32 0054 Jan 27 18:51:58 9997 -24068 P -1.4557 0.1898 62.6S 74.0E 0
04951 33 0072 Feb 08 02:30:05 9822 -23845 P -1.4835 0.1427 62.0S 50.2W 0
04995 34 0090 Feb 18 09:56:40 9647 -23622 P -1.5202 0.0803 61.4S 171.5W 0
05040 35 0108 Feb 29 17:15:40 9474 -23399 Pe -1.5625 0.0082 61.1S 69.3E 0

SAROS SERIES

52

Saros series 52 contains 86 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01477 -46 -1378 Aug 14 13:12:41 32551 -41773 Pb -1.5201 0.0278 62.5S 68.7E 0
01519 -45 -1360 Aug 24 21:13:05 32184 -41550 P -1.4850 0.0962 61.9S 62.1W 0

01561 -44 -1342 Sep 05 05:21:06 31820 -41327 P -1.4566 0.1517 61.4S 165.4E 0

01604 -43 -1324 Sep 15 13:36:18 31458 -41104 P -1.4346 0.1945 61.0S 31.3E 0

01648 -42 -1306 Sep 26 21:58:51 31098 -40881 P -1.4191 0.2249 60.8S 104.6W 0

01691 -41 -1288 Oct 07 06:27:50 30740 -40658 P -1.4092 0.2444 60.8S 117.9E 0

01736 -40 -1270 Oct 18 15:02:56 30384 -40435 P -1.4049 0.2535 60.9S 21.0W 0

01781 -39 -1252 Oct 28 23:40:54 30030 -40212 P -1.4034 0.2573 61.2S 160.8W 0

01826 -38 -1234 Nov 09 08:23:08 29678 -39989 P -1.4060 0.2534 61.6S 58.4E 0

01871 -37 -1216 Nov 19 17:05:52 29328 -39766 P -1.4101 0.2466 62.2S 82.8W 0

01916 -36 -1198 Dec 01 01:48:49 28980 -39543 P -1.4147 0.2388 63.0S 135.8E 0

01961 -35 -1180 Dec 11 10:27:44 28635 -39320 P -1.4171 0.2350 63.8S 4.8W 0

02007 -34 -1162 Dec 22 19:03:55 28291 -39097 P -1.4181 0.2335 64.8S 145.1W 0

02053 -33 -1143 Jan 02 03:33:34 27950 -38874 P -1.4149 0.2394 65.8S 75.9E 0

02099 -32 -1125 Jan 13 11:56:16 27610 -38651 P -1.4071 0.2534 66.8S 61.9W 0

02144 -31 -1107 Jan 23 20:10:09 27273 -38428 P -1.3934 0.2781 67.9S 162.1E 0

02187 -30 -1089 Feb 04 04:15:20 26938 -38205 P -1.3734 0.3140 68.9S 27.8E 0

02230 -29 -1071 Feb 14 12:10:04 26605 -37982 P -1.3461 0.3632 69.8S 104.5W 0

02273 -28 -1053 Feb 25 19:54:43 26273 -37759 P -1.3116 0.4254 70.5S 125.1E 0

02316 -27 -1035 Mar 08 03:29:08 25944 -37536 P -1.2696 0.5008 71.1S 3.2W 0

02360 -26 -1017 Mar 19 10:54:23 25617 -37313 P -1.2212 0.5879 71.5S 129.6W 0

02402 -25 -0999 Mar 29 18:08:50 25292 -37090 P -1.1646 0.6895 71.7S 106.5E 0

02443 -24 -0981 Apr 10 01:16:03 24970 -36867 P -1.1028 0.8002 71.6S 15.7W 0

02484 -23 -0963 Apr 20 08:14:34 24649 -36644 P -1.0344 0.9224 71.3S 135.4W 0

02525 -22 -0945 May 01 15:08:00 24330 -36421 A -0.9628 0.9812 59.3S 82.9E 15 252 01m30s

02566 -21 -0927 May 11 21:53:47 24014 -36198 A -0.8855 0.9820 45.6S 33.9W 27 137 01m41s

02606 -20 -0909 May 23 04:37:51 23699 -35975 A -0.8075 0.9811 35.0S 143.2W 36 114 01m59s

02645 -19 -0891 Jun 02 11:17:54 23386 -35752 A -0.7266 0.9792 25.8S 110.7E 43 107 02m22s

02686 -18 -0873 Jun 13 17:58:30 23076 -35529 A -0.6470 0.9766 17.9S 6.0E 50 109 02m51s

02727 -17 -0855 Jun 24 00:38:07 22768 -35306 A -0.5672 0.9733 11.0S 97.5W 55 116 03m23s

02767 -16 -0837 Jul 05 07:21:54 22461 -35083 A -0.4915 0.9695 5.5S 158.9E 61 126 03m55s
02808 -15 -0819 Jul 15 14:07:59 22157 -34860 A -0.4183 0.9652 1.2S 55.4E 65 138 04m27s
02849 -14 -0801 Jul 26 20:59:11 21855 -34637 A -0.3499 0.9606 1.9N 48.8W 70 152 04m57s
02890 -13 -0783 Aug 06 03:56:12 21555 -34414 A -0.2870 0.9557 3.7N 154.1W 73 168 05m26s
02931 -12 -0765 Aug 17 11:00:55 21257 -34191 A -0.2310 0.9507 4.2N 98.8E 77 185 05m53s
02973 -11 -0747 Aug 27 18:13:34 20961 -33968 A -0.1818 0.9457 3.6N 10.1W 80 203 06m20s
03015 -10 -0729 Sep 08 01:33:43 20667 -33745 A -0.1394 0.9409 2.1N 121.1W 82 221 06m47s
03059 -09 -0711 Sep 18 09:03:14 20376 -33522 A -0.1051 0.9363 0.3S 125.5E 84 238 07m15s
03103 -08 -0693 Sep 29 16:40:11 20086 -33299 A -0.0772 0.9320 3.3S 10.0E 86 255 07m44s
03148 -07 -0675 Oct 10 00:24:52 19798 -33076 A -0.0562 0.9282 6.7S 107.4W 87 270 08m13s
03193 -06 -0657 Oct 21 08:15:36 19513 -32853 A -0.0405 0.9249 10.3S 133.6E 88 283 08m43s
03238 -05 -0639 Oct 31 16:12:24 19229 -32630 A -0.0302 0.9222 13.9S 13.3E 88 294 09m12s
03284 -04 -0621 Nov 12 00:12:30 18948 -32407 A -0.0230 0.9202 17.3S 107.6W 89 302 09m40s
03331 -03 -0603 Nov 22 08:14:30 18669 -32184 Am -0.0176 0.9188 20.2S 131.4E 89 308 10m06s
03378 -02 -0585 Dec 03 16:16:58 18391 -31961 A -0.0131 0.9182 22.3S 10.6E 89 311 10m27s
03426 -01 -0567 Dec 14 00:18:30 18116 -31738 A -0.0084 0.9182 23.7S 109.7W 89 311 10m42s
03472 00 -0549 Dec 25 08:15:49 17843 -31515 A -0.0002 0.9189 23.9S 131.3E 90 308 10m49s
03517 01 -0530 Jan 04 16:08:23 17572 -31292 A 0.0118 0.9202 22.9S 13.4E 89 302 10m50s
03562 02 -0512 Jan 15 23:54:16 17303 -31069 A 0.0290 0.9222 20.7S 103.2W 88 294 10m41s
03607 03 -0494 Jan 26 07:33:51 17017 -30846 A 0.0513 0.9245 17.4S 141.3E 87 285 10m24s
03651 04 -0476 Feb 06 15:03:05 16700 -30623 A 0.0820 0.9274 12.9S 27.5E 85 274 10m00s
03695 05 -0458 Feb 16 22:25:01 16392 -30400 A 0.1187 0.9304 7.5S 85.0W 83 262 09m29s
03738 06 -0440 Feb 28 05:36:11 16093 -30177 A 0.1647 0.9337 1.2S 164.6E 81 250 08m54s
03782 07 -0422 Mar 10 12:40:07 15802 -29954 A 0.2165 0.9371 5.7N 55.5E 77 239 08m14s
03824 08 -0404 Mar 20 19:33:16 15518 -29731 A 0.2774 0.9405 13.4N 51.3W 74 229 07m32s
03866 09 -0386 Apr 01 02:20:48 15241 -29508 A 0.3431 0.9437 21.4N 156.8W 70 220 06m49s
03908 10 -0368 Apr 11 08:59:55 14971 -29285 A 0.4160 0.9467 30.0N 99.6E 65 215 06m06s
03947 11 -0350 Apr 22 15:34:12 14708 -29062 A 0.4930 0.9494 38.8N 2.8W 60 213 05m25s

03987	12	-0332	May 02	22:03:21	14451	-28839	A	0.5746	0.9516	48.0N	103.7W	55	216	04m47s
04028	13	-0314	May 14	04:30:35	14199	-28616	A	0.6581	0.9534	57.5N	156.4E	49	227	04m13s
04069	14	-0296	May 24	10:56:12	13953	-28393	A	0.7430	0.9545	67.3N	57.6E	42	250	03m45s
04109	15	-0278	Jun 04	17:21:55	13712	-28170	A	0.8282	0.9548	77.8N	39.4W	34	297	03m22s
04149	16	-0260	Jun 14	23:50:04	13477	-27947	A	0.9118	0.9541	89.1N	75.8W	24	416	03m05s
04190	17	-0242	Jun 26	06:22:06	13246	-27724	An	0.9929	0.9507	71.0N	57.1W	5	-	02m50s
04231	18	-0224	Jul 06	12:59:15	13020	-27501	P	1.0700	0.8486	64.8N	164.2W	0		
04272	19	-0206	Jul 17	19:43:04	12798	-27278	P	1.1423	0.7229	63.9N	84.3E	0		
04313	20	-0188	Jul 28	02:35:11	12581	-27055	P	1.2085	0.6078	63.1N	29.1W	0		
04356	21	-0170	Aug 08	09:36:26	12368	-26832	P	1.2681	0.5041	62.4N	144.5W	0		
04400	22	-0152	Aug 18	16:46:22	12159	-26609	P	1.3214	0.4113	61.8N	98.1E	0		
04442	23	-0134	Aug 30	00:07:33	11953	-26386	P	1.3664	0.3330	61.3N	21.9W	0		
04485	24	-0116	Sep 09	07:38:46	11752	-26163	P	1.4039	0.2680	61.0N	144.3W	0		
04528	25	-0098	Sep 20	15:21:31	11553	-25940	P	1.4331	0.2172	60.9N	90.5E	0		
04571	26	-0080	Sep 30	23:12:44	11358	-25717	P	1.4562	0.1769	60.9N	36.8W	0		
04616	27	-0062	Oct 12	07:15:02	11166	-25494	P	1.4713	0.1506	61.0N	166.8W	0		
04661	28	-0044	Oct 22	15:24:22	10977	-25271	P	1.4815	0.1325	61.4N	61.3E	0		
04707	29	-0026	Nov 02	23:41:43	10790	-25048	P	1.4859	0.1244	61.9N	72.7W	0		
04753	30	-0008	Nov 13	08:03:40	10606	-24825	P	1.4874	0.1211	62.5N	152.0E	0		
04798	31	0010	Nov 24	16:30:45	10425	-24602	P	1.4856	0.1234	63.3N	15.3E	0		
04844	32	0028	Dec 05	00:59:19	10245	-24379	P	1.4833	0.1263	64.1N	122.1W	0		
04890	33	0046	Dec 16	09:28:43	10067	-24156	P	1.4810	0.1290	65.1N	100.0E	0		
04934	34	0064	Dec 26	17:56:59	9891	-23933	P	1.4805	0.1283	66.1N	38.1W	0		
04978	35	0083	Jan 07	02:23:03	9716	-23710	P	1.4820	0.1238	67.2N	176.0W	0		
05023	36	0101	Jan 17	10:44:09	9542	-23487	P	1.4885	0.1101	68.2N	46.7E	0		
05067	37	0119	Jan 28	19:00:14	9370	-23264	P	1.4998	0.0877	69.2N	89.9W	0		
05111	38	0137	Feb 08	03:09:58	9198	-23041	P	1.5167	0.0546	70.1N	134.5E	0		
05155	39	0155	Feb 19	11:13:58	9026	-22818	Pe	1.5389	0.0115	70.8N	0.2W	0		

SAROS SERIES

53

Saros series 53 contains 84 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01719	-33	-1277	Sep 06	14:49:01	30524	-40523	Pb	1.5325	0.0604	70.8N	149.9W	0	
01763	-32	-1259	Sep 16	22:15:38	30169	-40300	P	1.5024	0.1122	71.4N	83.4E	0	
01809	-31	-1241	Sep 28	05:50:36	29817	-40077	P	1.4788	0.1527	71.7N	45.9W	0	
01854	-30	-1223	Oct 08	13:33:39	29466	-39854	P	1.4614	0.1825	71.7N	177.3W	0	
01898	-29	-1205	Oct 19	21:23:26	29117	-39631	P	1.4493	0.2033	71.5N	49.6E	0	
01943	-28	-1187	Oct 30	05:19:26	28771	-39408	P	1.4418	0.2161	71.0N	84.7W	0	
01989	-27	-1169	Nov 10	13:18:03	28427	-39185	P	1.4363	0.2256	70.3N	140.9E	0	
02035	-26	-1151	Nov 20	21:20:09	28084	-38962	P	1.4332	0.2307	69.5N	6.3E	0	
02081	-25	-1133	Dec 02	05:21:10	27744	-38739	P	1.4287	0.2379	68.5N	127.4W	0	
02126	-24	-1115	Dec 12	13:21:48	27406	-38516	P	1.4240	0.2455	67.4N	99.6E	0	

02170	-23	-1097	Dec 23	21:17:02	27070	-38293	P	1.4143	0.2611	66.3N	31.4W	0
02213	-22	-1078	Jan 03	05:09:27	26736	-38070	P	1.4020	0.2809	65.2N	161.3W	0
02256	-21	-1060	Jan 14	12:54:16	26404	-37847	P	1.3827	0.3124	64.2N	71.3E	0
02299	-20	-1042	Jan 24	20:32:30	26074	-37624	P	1.3578	0.3535	63.3N	54.2W	0
02343	-19	-1024	Feb 05	04:01:24	25746	-37401	P	1.3246	0.4088	62.5N	177.1W	0
02385	-18	-1006	Feb 15	11:23:11	25420	-37178	P	1.2850	0.4754	61.8N	62.1E	0
02427	-17	-0988	Feb 26	18:36:12	25097	-36955	P	1.2372	0.5567	61.3N	56.4W	0
02468	-16	-0970	Mar 09	01:40:51	24775	-36732	P	1.1818	0.6518	60.9N	172.7W	0
02509	-15	-0952	Mar 19	08:38:04	24456	-36509	P	1.1192	0.7602	60.6N	73.0E	0
02550	-14	-0934	Mar 30	15:28:49	24138	-36286	P	1.0506	0.8800	60.5N	39.7W	0
02590	-13	-0916	Apr 09	22:13:31	23823	-36063	A	0.9759	0.9512	60.3N	126.6W	12 841 03m26s
02630	-12	-0898	Apr 21	04:53:45	23510	-35840	A	0.8964	0.9591	58.2N	151.3E	26 330 03m04s
02670	-11	-0880	May 01	11:30:53	23198	-35617	A	0.8132	0.9653	56.9N	61.5E	35 212 02m42s
02711	-10	-0862	May 12	18:07:22	22889	-35394	A	0.7284	0.9706	55.9N	30.1W	43 152 02m21s
02751	-09	-0844	May 23	00:42:20	22582	-35171	A	0.6413	0.9753	54.6N	121.9W	50 114 02m03s
02791	-08	-0826	Jun 03	07:20:24	22277	-34948	A	0.5557	0.9792	52.8N	144.8E	56 89 01m47s
02832	-07	-0808	Jun 13	14:00:41	21974	-34725	A	0.4711	0.9825	50.0N	49.9E	62 70 01m34s
02873	-06	-0790	Jun 24	20:47:17	21673	-34502	A	0.3903	0.9852	46.5N	47.8W	67 57 01m24s
02914	-05	-0772	Jul 05	03:37:59	21374	-34279	A	0.3119	0.9872	42.1N	147.9W	72 47 01m15s
02956	-04	-0754	Jul 16	10:37:53	21078	-34056	A	0.2401	0.9888	37.1N	108.4E	76 41 01m09s
02998	-03	-0736	Jul 26	17:45:01	20783	-33833	A	0.1735	0.9899	31.6N	1.7E	80 36 01m04s
03042	-02	-0718	Aug 07	01:02:14	20491	-33610	A	0.1142	0.9906	25.8N	108.4W	83 33 01m01s
03086	-01	-0700	Aug 17	08:28:33	20200	-33387	A	0.0615	0.9910	19.8N	138.5E	86 32 00m59s
03131	00	-0682	Aug 28	16:06:23	19912	-33164	A	0.0172	0.9913	13.7N	22.0E	89 31 00m57s
03176	01	-0664	Sep 07	23:54:24	19625	-32941	A	-0.0191	0.9914	7.7N	97.3W	89 30 00m57s
03221	02	-0646	Sep 19	07:51:54	19341	-32718	A	-0.0485	0.9916	1.9N	141.0E	87 30 00m55s
03266	03	-0628	Sep 29	15:59:34	19059	-32495	A	-0.0702	0.9919	3.8S	16.7E	86 29 00m52s
03312	04	-0610	Oct 11	00:15:52	18779	-32272	A	-0.0856	0.9925	9.1S	109.5W	85 27 00m48s

03359	05	-0592	Oct 21	08:40:14	18500	-32049	A	-0.0949	0.9934	14.0S	122.7E	84	23	00m42s
03407	06	-0574	Nov 01	17:09:53	18225	-31826	A	-0.1006	0.9947	18.4S	6.1W	84	19	00m33s
03454	07	-0556	Nov 12	01:45:24	17951	-31603	A	-0.1020	0.9965	22.2S	135.7W	84	12	00m21s
03499	08	-0538	Nov 23	10:23:35	17679	-31380	A	-0.1021	0.9989	25.3S	94.4E	84	4	00m06s
03544	09	-0520	Dec 03	19:03:27	17409	-31157	Hm	-0.1014	1.0019	27.7S	35.3W	84	7	00m11s
03589	10	-0502	Dec 15	03:42:43	17141	-30934	H	-0.1022	1.0054	29.2S	164.5W	84	19	00m32s
03634	11	-0484	Dec 25	12:20:30	16824	-30711	H	-0.1049	1.0095	29.9S	66.6E	84	33	00m55s
03677	12	-0465	Jan 05	20:54:17	16513	-30488	H	-0.1117	1.0141	29.8S	61.1W	83	49	01m20s
03721	13	-0447	Jan 16	05:23:22	16210	-30265	T	-0.1232	1.0191	29.0S	172.2E	83	66	01m46s
03765	14	-0429	Jan 27	13:46:44	15916	-30042	T	-0.1404	1.0245	27.6S	46.8E	82	84	02m12s
03807	15	-0411	Feb 06	22:04:04	15629	-29819	T	-0.1635	1.0300	25.8S	77.3W	80	103	02m38s
03849	16	-0393	Feb 18	06:12:56	15350	-29596	T	-0.1944	1.0358	23.8S	160.4E	79	123	03m03s
03891	17	-0375	Feb 28	14:15:18	15077	-29373	T	-0.2312	1.0415	21.7S	39.6E	77	142	03m28s
03932	18	-0357	Mar 11	22:09:30	14811	-29150	T	-0.2756	1.0471	19.7S	79.3W	74	162	03m53s
03971	19	-0339	Mar 22	05:58:20	14551	-28927	T	-0.3252	1.0523	17.9S	163.0E	71	182	04m17s
04012	20	-0321	Apr 02	13:38:29	14298	-28704	T	-0.3826	1.0571	16.8S	47.4E	67	202	04m41s
04053	21	-0303	Apr 12	21:15:09	14049	-28481	T	-0.4435	1.0613	16.2S	67.4W	64	222	05m04s
04094	22	-0285	Apr 24	04:45:23	13807	-28258	T	-0.5100	1.0649	16.5S	179.3E	59	244	05m25s
04134	23	-0267	May 04	12:13:28	13569	-28035	T	-0.5788	1.0677	17.8S	66.3E	55	267	05m43s
04174	24	-0249	May 15	19:37:08	13336	-27812	T	-0.6518	1.0695	20.4S	45.8W	49	295	05m56s
04215	25	-0231	May 26	03:01:25	13109	-27589	T	-0.7246	1.0704	24.2S	158.4W	43	329	06m01s
04255	26	-0213	Jun 06	10:24:42	12885	-27366	T	-0.7985	1.0702	29.5S	88.6E	37	377	05m55s
04296	27	-0195	Jun 16	17:49:40	12666	-27143	T	-0.8712	1.0687	36.7S	25.4W	29	457	05m36s
04338	28	-0177	Jun 28	01:16:50	12452	-26920	T	-0.9423	1.0656	46.9S	141.0W	19	650	04m59s
04381	29	-0159	Jul 08	08:48:26	12241	-26697	T-	-1.0096	1.0051	66.8S	100.1E	0		
04424	30	-0141	Jul 19	16:24:37	12034	-26474	P	-1.0736	0.8805	67.8S	25.8W	0		
04467	31	-0123	Jul 30	00:06:03	11831	-26251	P	-1.1331	0.7648	68.8S	153.5W	0		
04510	32	-0105	Aug 10	07:54:22	11631	-26028	P	-1.1869	0.6604	69.7S	76.5E	0		

04553 33 -0087 Aug 20 15:49:58 11435 -25805 P -1.2346 0.5682 70.5S 55.9W 0
 04598 34 -0069 Aug 31 23:52:47 11241 -25582 P -1.2764 0.4878 71.1S 169.3E 0
 04643 35 -0051 Sep 11 08:03:38 11051 -25359 P -1.3117 0.4204 71.6S 32.0E 0
 04688 36 -0033 Sep 22 16:22:35 10864 -25136 P -1.3406 0.3658 71.8S 107.5W 0
 04735 37 -0015 Oct 03 00:49:29 10679 -24913 P -1.3627 0.3242 71.7S 110.8E 0
 04780 38 0003 Oct 14 09:21:59 10496 -24690 P -1.3804 0.2914 71.4S 32.1W 0
 04826 39 0021 Oct 24 18:01:51 10316 -24467 P -1.3922 0.2698 70.9S 176.5W 0
 04872 40 0039 Nov 05 02:46:19 10137 -24244 P -1.4007 0.2547 70.2S 38.5E 0
 04917 41 0057 Nov 15 11:35:19 9960 -24021 P -1.4055 0.2463 69.3S 107.1W 0
 04961 42 0075 Nov 26 20:25:25 9785 -23798 P -1.4094 0.2394 68.3S 107.8E 0
 05005 43 0093 Dec 07 05:17:33 9611 -23575 P -1.4120 0.2352 67.2S 37.3W 0
 05050 44 0111 Dec 18 14:08:22 9438 -23352 P -1.4157 0.2285 66.1S 178.5E 0
 05094 45 0129 Dec 28 22:56:40 9266 -23129 P -1.4215 0.2179 65.1S 35.5E 0
 05138 46 0148 Jan 09 07:40:46 9094 -22906 P -1.4308 0.2007 64.1S 106.1W 0
 05180 47 0166 Jan 19 16:19:33 8923 -22683 P -1.4443 0.1756 63.3S 114.0E 0
 05221 48 0184 Jan 31 00:51:23 8752 -22460 P -1.4631 0.1402 62.5S 23.9W 0
 05262 49 0202 Feb 10 09:15:07 8581 -22237 P -1.4884 0.0928 61.9S 159.6W 0
 05303 50 0220 Feb 21 17:30:46 8410 -22014 Pe -1.5199 0.0338 61.4S 66.9E 0

SAROS SERIES

Saros series 54 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
												GREATEST	°	km
ECLIPSE														

01700	-37	-1284	Jul 25	11:02:31	30665	-40611	Pb	-1.4893	0.0993	63.8S	109.3E	0	
01745	-36	-1266	Aug 05	18:33:52	30309	-40388	P	-1.4312	0.2056	63.0S	14.5W	0	
01791	-35	-1248	Aug 16	02:16:57	29955	-40165	P	-1.3813	0.2970	62.2S	141.0W	0	
01836	-34	-1230	Aug 27	10:08:47	29604	-39942	P	-1.3375	0.3772	61.6S	90.5E	0	
01881	-33	-1212	Sep 06	18:11:01	29255	-39719	P	-1.3014	0.4434	61.1S	40.4W	0	
01926	-32	-1194	Sep 18	02:22:03	28907	-39496	P	-1.2717	0.4978	60.8S	173.3W	0	
01971	-31	-1176	Sep 28	10:43:18	28562	-39273	P	-1.2500	0.5376	60.6S	51.2E	0	
02018	-30	-1158	Oct 09	19:11:37	28219	-39050	P	-1.2332	0.5683	60.6S	85.9W	0	
02064	-29	-1140	Oct 20	03:46:53	27878	-38827	P	-1.2217	0.5894	60.8S	135.2E	0	
02109	-28	-1122	Oct 31	12:27:26	27539	-38604	P	-1.2142	0.6033	61.1S	5.1W	0	
02154	-27	-1104	Nov 10	21:12:57	27202	-38381	P	-1.2105	0.6101	61.7S	146.7W	0	
02197	-26	-1086	Nov 22	05:59:18	26867	-38158	P	-1.2071	0.6165	62.3S	71.3E	0	
02240	-25	-1068	Dec 02	14:47:08	26535	-37935	P	-1.2048	0.6210	63.1S	71.3W	0	
02283	-24	-1050	Dec 13	23:32:46	26204	-37712	P	-1.2004	0.6295	64.0S	146.4E	0	
02326	-23	-1032	Dec 24	08:17:08	25875	-37489	P	-1.1946	0.6407	65.0S	4.0E	0	
02369	-22	-1013	Jan 04	16:55:21	25549	-37266	P	-1.1838	0.6613	66.1S	137.2W	0	
02411	-21	-0995	Jan 15	01:30:15	25224	-37043	P	-1.1698	0.6881	67.1S	82.0E	0	
02452	-20	-0977	Jan 26	09:57:00	24902	-36820	P	-1.1492	0.7275	68.2S	57.3W	0	
02493	-19	-0959	Feb 05	18:17:58	24582	-36597	P	-1.1234	0.7773	69.2S	164.2E	0	
02534	-18	-0941	Feb 17	02:29:38	24263	-36374	P	-1.0898	0.8423	70.1S	27.5E	0	
02574	-17	-0923	Feb 27	10:35:25	23947	-36151	P	-1.0511	0.9176	70.8S	108.3W	0	

02614 -16 -0905 Mar 10 18:32:35 23633 -35928 T- -1.0053 1.0072 71.4S 117.5E 0

02654 -15 -0887 Mar 21 02:22:47 23321 -35705 T -0.9534 1.0558 67.9S 64.6W 17 624 03m18s

02695 -14 -0869 Apr 01 10:06:04 23011 -35482 T -0.8955 1.0623 58.0S 157.8E 26 459 04m04s

02736 -13 -0851 Apr 11 17:43:49 22703 -35259 T -0.8327 1.0677 48.2S 31.5E 33 396 04m50s

02775 -12 -0833 Apr 23 01:16:36 22397 -35036 T -0.7657 1.0720 38.9S 90.1W 40 361 05m33s

02816 -11 -0815 May 03 08:45:04 22093 -34813 T -0.6950 1.0754 29.9S 151.1E 46 338 06m13s

02857 -10 -0797 May 14 16:11:28 21792 -34590 T -0.6224 1.0778 21.6S 34.0E 51 320 06m47s

02898 -09 -0779 May 24 23:36:32 21492 -34367 T -0.5483 1.0792 13.9S 81.8W 57 305 07m11s

02939 -08 -0761 Jun 05 07:01:07 21195 -34144 T -0.4737 1.0797 6.8S 163.3E 62 292 07m25s

02981 -07 -0743 Jun 15 14:27:14 20899 -33921 T -0.4004 1.0792 0.7S 48.8E 66 279 07m28s

03024 -06 -0725 Jun 26 21:55:33 20606 -33698 T -0.3288 1.0777 4.6N 65.5W 71 266 07m18s

03069 -05 -0707 Jul 07 05:27:58 20314 -33475 T -0.2608 1.0755 8.7N 179.9E 75 253 07m00s

03113 -04 -0689 Jul 18 13:03:42 20025 -33252 T -0.1957 1.0724 11.8N 65.0E 79 240 06m35s

03158 -03 -0671 Jul 28 20:46:07 19738 -33029 T -0.1364 1.0688 13.6N 51.1W 82 226 06m07s

03203 -02 -0653 Aug 09 04:34:13 19453 -32806 T -0.0820 1.0645 14.2N 168.5W 85 212 05m37s

03248 -01 -0635 Aug 19 12:30:05 19170 -32583 T -0.0345 1.0600 13.7N 72.2E 88 197 05m08s

03294 00 -0617 Aug 30 20:32:32 18889 -32360 Tm 0.0070 1.0551 12.3N 48.9W 90 182 04m39s

03341 01 -0599 Sep 10 04:43:29 18610 -32137 T 0.0411 1.0501 9.9N 172.5W 88 166 04m13s

03388 02 -0581 Sep 21 13:01:27 18333 -31914 T 0.0690 1.0450 7.0N 62.0E 86 150 03m48s

03435 03 -0563 Oct 01 21:26:14 18058 -31691 T 0.0905 1.0402 3.6N 65.5W 85 135 03m25s

03481 04 -0545 Oct 13 05:57:57 17786 -31468 T 0.1060 1.0355 0.0S 165.2E 84 120 03m04s

03526 05 -0527 Oct 23 14:35:17 17515 -31245 T 0.1160 1.0313 3.7S 34.4E 83 106 02m46s

03571 06 -0509 Nov 03 23:17:35 17247 -31022 T 0.1217 1.0275 7.3S 97.6W 83 94 02m29s

03616 07 -0491 Nov 14 08:01:38 16949 -30799 T 0.1254 1.0241 10.5S 130.1E 83 83 02m15s

03661 08 -0473 Nov 25 16:48:43 16634 -30576 T 0.1262 1.0213 13.2S 2.7W 83 73 02m03s

03705 09 -0455 Dec 06 01:34:59 16328 -30353 T 0.1270 1.0191 15.2S 135.1W 83 66 01m53s

03748 10 -0437 Dec 17 10:19:56 16031 -30130 H3 0.1286 1.0173 16.2S 93.1E 83 60 01m45s

03791 11 -0419 Dec 27 19:00:22 15741 -29907 H 0.1333 1.0160 16.2S 37.5W 82 55 01m39s

03833	12	-0400	Jan 08	03:36:41	15459	-29684	H	0.1409	1.0152	15.1S	167.2W	82	53	01m35s
03875	13	-0382	Jan 18	12:05:58	15184	-29461	H	0.1538	1.0147	12.9S	64.7E	81	51	01m33s
03916	14	-0364	Jan 29	20:27:34	14915	-29238	H	0.1722	1.0144	9.5S	61.9W	80	50	01m31s
03955	15	-0346	Feb 09	04:40:18	14653	-29015	H	0.1973	1.0142	5.1S	173.2E	79	50	01m30s
03995	16	-0328	Feb 20	12:44:07	14397	-28792	H	0.2290	1.0141	0.1N	50.1E	77	50	01m29s
04036	17	-0310	Mar 02	20:37:22	14147	-28569	H	0.2687	1.0139	6.2N	70.9W	74	49	01m26s
04078	18	-0292	Mar 13	04:21:15	13902	-28346	H	0.3154	1.0134	13.0N	170.0E	72	48	01m22s
04118	19	-0274	Mar 24	11:55:07	13662	-28123	H	0.3695	1.0126	20.3N	53.2E	68	47	01m15s
04158	20	-0256	Apr 03	19:20:53	13428	-27900	H	0.4293	1.0114	28.2N	61.8W	64	43	01m05s
04199	21	-0238	Apr 15	02:36:22	13198	-27677	H	0.4970	1.0096	36.5N	174.4W	60	38	00m53s
04240	22	-0220	Apr 25	09:45:57	12973	-27454	H	0.5684	1.0072	45.2N	74.6E	55	30	00m37s
04281	23	-0202	May 06	16:47:22	12752	-27231	H	0.6460	1.0041	54.4N	34.3W	49	19	00m20s
04322	24	-0184	May 16	23:45:33	12536	-27008	H	0.7249	1.0003	63.9N	141.9W	43	2	00m01s
04365	25	-0166	May 28	06:37:14	12323	-26785	A	0.8082	0.9955	74.2N	112.2E	36	27	00m19s
04408	26	-0148	Jun 07	13:28:56	12115	-26562	A	0.8904	0.9897	85.5N	4.6E	27	81	00m39s
04451	27	-0130	Jun 18	20:17:43	11911	-26339	A	0.9739	0.9819	78.6N	91.6E	12	303	01m02s
04494	28	-0112	Jun 29	03:08:17	11709	-26116	P	1.0548	0.8844	65.4N	16.0W	0		
04537	29	-0094	Jul 10	09:59:11	11512	-25893	P	1.1341	0.7419	64.4N	129.5W	0		
04581	30	-0076	Jul 20	16:54:35	11317	-25670	P	1.2084	0.6094	63.5N	116.3E	0		
04626	31	-0058	Jul 31	23:53:34	11126	-25447	P	1.2787	0.4855	62.7N	1.4E	0		
04671	32	-0040	Aug 11	06:58:01	10937	-25224	P	1.3435	0.3726	62.1N	114.6W	0		
04717	33	-0022	Aug 22	14:08:43	10751	-25001	P	1.4020	0.2719	61.5N	128.0E	0		
04763	34	-0004	Sep 01	21:27:04	10568	-24778	P	1.4533	0.1846	61.1N	8.9E	0		
04808	35	0014	Sep 13	04:52:58	10386	-24555	P	1.4976	0.1105	60.8N	112.1W	0		
04854	36	0032	Sep 23	12:26:34	10207	-24332	Pe	1.5349	0.0491	60.7N	125.2E	0		

SAROS SERIES

55

Saros series 55 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
01772	-37	-1255 Jul 06	01:56:11	30095	-40253	Pb	1.5161	0.0296	65.7N	107.5E	0		
01818	-36	-1237 Jul 17	09:29:13	29742	-40030	P	1.4588	0.1408	66.6N	17.7W	0		
01863	-35	-1219 Jul 27	17:07:31	29392	-39807	P	1.4063	0.2420	67.6N	144.7W	0		
01908	-34	-1201 Aug 08	00:53:11	29044	-39584	P	1.3603	0.3301	68.6N	85.9E	0		
01953	-33	-1183 Aug 18	08:44:20	28698	-39361	P	1.3193	0.4077	69.5N	45.4W	0		
01999	-32	-1165 Aug 29	16:43:59	28354	-39138	P	1.2862	0.4700	70.3N	179.4W	0		
02045	-31	-1147 Sep 09	00:50:01	28012	-38915	P	1.2589	0.5206	71.0N	44.4E	0		
02091	-30	-1129 Sep 20	09:04:16	27673	-38692	P	1.2390	0.5572	71.4N	94.3W	0		
02136	-29	-1111 Sep 30	17:24:12	27335	-38469	P	1.2245	0.5834	71.6N	125.2E	0		
02179	-28	-1093 Oct 12	01:51:37	26999	-38246	P	1.2167	0.5973	71.6N	17.2W	0		
02222	-27	-1075 Oct 22	10:23:13	26666	-38023	P	1.2132	0.6032	71.3N	160.5W	0		
02265	-26	-1057 Nov 02	18:59:05	26334	-37800	P	1.2138	0.6016	70.7N	55.5E	0		
02308	-25	-1039 Nov 13	03:36:49	26005	-37577	P	1.2166	0.5962	70.0N	88.4W	0		
02352	-24	-1021 Nov 24	12:16:23	25677	-37354	P	1.2213	0.5876	69.1N	127.9E	0		

02394	-23	-1003	Dec 04	20:53:48	25352	-37131	P	1.2251	0.5807	68.0N	14.6W	0
02435	-22	-0985	Dec 16	05:28:52	25029	-36908	P	1.2277	0.5761	67.0N	155.9W	0
02476	-21	-0967	Dec 26	13:58:52	24708	-36685	P	1.2267	0.5777	65.9N	64.5E	0
02517	-20	-0948	Jan 06	22:24:11	24389	-36462	P	1.2226	0.5850	64.9N	73.3W	0
02558	-19	-0930	Jan 17	06:39:57	24072	-36239	P	1.2115	0.6049	63.9N	151.6E	0
02598	-18	-0912	Jan 28	14:48:33	23757	-36016	P	1.1954	0.6336	63.1N	18.7E	0
02638	-17	-0894	Feb 07	22:46:04	23444	-35793	P	1.1711	0.6769	62.3N	111.2W	0
02679	-16	-0876	Feb 19	06:35:08	23133	-35570	P	1.1408	0.7308	61.7N	121.2E	0
02720	-15	-0858	Mar 01	14:11:36	22824	-35347	P	1.1009	0.8017	61.2N	3.1W	0
02760	-14	-0840	Mar 11	21:39:48	22518	-35124	P	1.0552	0.8831	60.9N	125.2W	0
02800	-13	-0822	Mar 23	04:56:24	22213	-34901	A+	1.0009	0.9795	60.7N	115.6E	0
02841	-12	-0804	Apr 02	12:04:22	21911	-34678	A	0.9403	0.9759	56.4N	35.5E	19 250 01m44s
02882	-11	-0786	Apr 13	19:02:34	21610	-34455	A	0.8723	0.9772	54.5N	61.4W	29 163 01m43s
02923	-10	-0768	Apr 24	01:54:31	21312	-34232	A	0.8001	0.9776	53.7N	158.8W	37 131 01m44s
02964	-09	-0750	May 05	08:39:48	21015	-34009	A	0.7229	0.9772	53.2N	105.1E	43 116 01m49s
03006	-08	-0732	May 15	15:19:45	20721	-33786	A	0.6419	0.9761	52.4N	10.5E	50 110 01m59s
03050	-07	-0714	May 26	21:56:48	20429	-33563	A	0.5594	0.9743	51.1N	83.4W	56 110 02m14s
03095	-06	-0696	Jun 06	04:32:00	20139	-33340	A	0.4761	0.9720	49.0N	177.3W	61 114 02m35s
03140	-05	-0678	Jun 17	11:07:03	19851	-33117	A	0.3932	0.9691	46.0N	87.9E	67 121 03m02s
03185	-04	-0660	Jun 27	17:42:34	19565	-32894	A	0.3114	0.9656	42.0N	8.0W	72 131 03m35s
03230	-03	-0642	Jul 09	00:21:38	19281	-32671	A	0.2331	0.9618	37.2N	106.1W	76 143 04m14s
03276	-02	-0624	Jul 19	07:04:44	18999	-32448	A	0.1591	0.9575	31.8N	153.6E	81 157 04m59s
03322	-01	-0606	Jul 30	13:52:42	18720	-32225	Am	0.0900	0.9530	25.9N	51.0E	85 172 05m46s
03369	00	-0588	Aug 09	20:47:36	18442	-32002	A	0.0271	0.9484	19.7N	54.0W	88 190 06m34s
03417	01	-0570	Aug 21	03:50:19	18167	-31779	A	-0.0286	0.9437	13.3N	161.7W	88 208 07m18s
03463	02	-0552	Aug 31	11:01:31	17893	-31556	A	-0.0767	0.9391	7.0N	88.2E	86 227 07m59s
03508	03	-0534	Sep 11	18:20:12	17622	-31333	A	-0.1181	0.9346	0.6N	24.0W	83 245 08m34s
03553	04	-0516	Sep 22	01:47:59	17352	-31110	A	-0.1513	0.9305	5.5S	138.5W	81 263 09m04s

03598 05 -0498 Oct 03 09:23:57 17076 -30887 A -0.1775 0.9266 11.4S 105.1E 80 280 09m29s
 03643 06 -0480 Oct 13 17:07:20 16758 -30664 A -0.1973 0.9234 17.0S 13.0W 79 295 09m49s
 03687 07 -0462 Oct 25 00:57:28 16448 -30441 A -0.2114 0.9206 22.1S 132.3W 78 307 10m05s
 03731 08 -0444 Nov 04 08:52:49 16147 -30218 A -0.2212 0.9185 26.7S 107.7E 77 317 10m16s
 03775 09 -0426 Nov 15 16:52:47 15855 -29995 A -0.2269 0.9170 30.6S 12.7W 77 324 10m23s
 03817 10 -0408 Nov 26 00:53:19 15569 -29772 A -0.2323 0.9163 33.8S 132.5W 76 327 10m22s
 03859 11 -0390 Dec 07 08:55:37 15292 -29549 A -0.2361 0.9162 36.2S 107.9E 76 328 10m16s
 03901 12 -0372 Dec 17 16:55:17 15020 -29326 A -0.2424 0.9169 37.7S 10.5W 76 326 10m02s
 03940 13 -0354 Dec 29 00:52:27 14756 -29103 A -0.2505 0.9182 38.3S 127.9W 75 321 09m42s
 03979 14 -0335 Jan 08 08:42:56 14497 -28880 A -0.2643 0.9200 38.1S 116.4E 74 314 09m16s
 04020 15 -0317 Jan 19 16:28:44 14245 -28657 A -0.2819 0.9225 37.1S 1.6E 73 305 08m47s
 04061 16 -0299 Jan 30 00:06:10 13998 -28434 A -0.3069 0.9254 35.7S 111.3W 72 295 08m15s
 04102 17 -0281 Feb 10 07:35:25 13756 -28211 A -0.3386 0.9286 33.9S 137.4E 70 283 07m43s
 04142 18 -0263 Feb 20 14:55:12 13520 -27988 A -0.3782 0.9321 32.1S 28.2E 68 272 07m12s
 04183 19 -0245 Mar 03 22:06:59 13288 -27765 A -0.4246 0.9358 30.3S 79.3W 65 261 06m44s
 04224 20 -0227 Mar 14 05:09:43 13061 -27542 A -0.4788 0.9395 28.9S 175.3E 61 252 06m18s
 04265 21 -0209 Mar 25 12:04:25 12839 -27319 A -0.5401 0.9431 28.1S 71.8E 57 245 05m55s
 04306 22 -0191 Apr 04 18:52:02 12621 -27096 A -0.6076 0.9464 28.2S 30.0W 52 242 05m35s
 04348 23 -0173 Apr 16 01:33:51 12407 -26873 A -0.6800 0.9494 29.3S 130.5W 47 246 05m18s
 04392 24 -0155 Apr 26 08:09:37 12197 -26650 A -0.7577 0.9520 32.0S 130.6E 41 261 05m02s
 04434 25 -0137 May 07 14:42:41 11991 -26427 A -0.8381 0.9538 36.5S 32.4E 33 301 04m46s
 04477 26 -0119 May 17 21:13:08 11788 -26204 A -0.9208 0.9546 44.2S 64.3W 23 419 04m28s
 04520 27 -0101 May 29 03:44:34 11589 -25981 A- -1.0032 0.9654 63.3S 149.6W 0
 04563 28 -0083 Jun 08 10:14:58 11394 -25758 P -1.0867 0.8208 64.2S 102.4E 0
 04608 29 -0065 Jun 19 16:50:19 11201 -25535 P -1.1662 0.6822 65.1S 7.1W 0
 04653 30 -0047 Jun 29 23:28:06 11011 -25312 P -1.2440 0.5461 66.1S 117.6W 0
 04698 31 -0029 Jul 11 06:13:03 10824 -25089 P -1.3164 0.4190 67.1S 129.7E 0
 04745 32 -0011 Jul 21 13:02:52 10640 -24866 P -1.3853 0.2978 68.1S 15.3E 0

04790 33 0007 Aug 01 20:02:56 10458 -24643 P -1.4464 0.1902 69.1S 102.2W 0

04836 34 0025 Aug 12 03:10:44 10278 -24420 P -1.5017 0.0928 69.9S 137.9E 0

04882 35 0043 Aug 23 10:28:50 10100 -24197 Pe -1.5493 0.0091 70.6S 14.7E 0

SAROS SERIES

56

Saros series 56 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

01981 -34 -1172 Jul 17 20:10:38 28490 -39226 Pb -1.5509 0.0224 64.4S 30.8W 0

02028 -33 -1154 Jul 29 02:53:30 28147 -39003 P -1.4854 0.1352 63.5S 142.7W 0

02074 -32 -1136 Aug 08 09:44:32 27806 -38780 P -1.4262 0.2368 62.7S 103.8E 0

02119 -31 -1118 Aug 19 16:44:36 27468 -38557 P -1.3738 0.3261 62.0S 11.8W 0

02163 -30 -1100 Aug 29 23:52:26 27131 -38334 P -1.3272 0.4050 61.4S 129.1W 0

02206 -29 -1082 Sep 10 07:10:58 26797 -38111 P -1.2889 0.4693 60.9S 111.1E 0

02249 -28 -1064 Sep 20 14:38:06 26465 -37888 P -1.2574 0.5219 60.6S 10.7W 0

02292 -27 -1046 Oct 01 22:15:12 26134 -37665 P -1.2334 0.5618 60.5S 135.0W 0
 02336 -26 -1028 Oct 12 05:58:51 25806 -37442 P -1.2144 0.5932 60.6S 99.1E 0
 02378 -25 -1010 Oct 23 13:51:12 25480 -37219 P -1.2020 0.6136 60.8S 28.9W 0
 02420 -24 -0992 Nov 02 21:47:52 25156 -36996 P -1.1926 0.6291 61.2S 158.2W 0
 02460 -23 -0974 Nov 14 05:49:08 24834 -36773 P -1.1868 0.6387 61.8S 71.3E 0
 02501 -22 -0956 Nov 24 13:51:36 24514 -36550 P -1.1814 0.6476 62.5S 59.6W 0
 02542 -21 -0938 Dec 05 21:55:18 24196 -36327 P -1.1767 0.6555 63.4S 168.9E 0
 02582 -20 -0920 Dec 16 05:56:25 23881 -36104 P -1.1695 0.6678 64.3S 37.7E 0
 02622 -19 -0902 Dec 27 13:54:30 23567 -35881 P -1.1594 0.6850 65.3S 93.1W 0
 02662 -18 -0883 Jan 06 21:47:16 23255 -35658 P -1.1446 0.7104 66.4S 137.0E 0
 02703 -17 -0865 Jan 18 05:34:46 22946 -35435 P -1.1254 0.7434 67.5S 8.0E 0
 02744 -16 -0847 Jan 28 13:13:23 22638 -35212 P -1.0983 0.7902 68.6S 119.4W 0
 02784 -15 -0829 Feb 08 20:45:13 22333 -34989 P -1.0650 0.8481 69.6S 114.3E 0
 02825 -14 -0811 Feb 19 04:08:00 22030 -34766 P -1.0238 0.9202 70.4S 10.3W 0
 02866 -13 -0793 Mar 02 11:24:22 21728 -34543 A -0.9765 0.9399 74.5S 172.2W 12 1102 04m06s
 02907 -12 -0775 Mar 12 18:30:48 21429 -34320 A -0.9204 0.9479 66.8S 38.9E 23 493 04m01s
 02948 -11 -0757 Mar 24 01:32:01 21132 -34097 A -0.8589 0.9550 57.0S 83.4W 30 319 03m50s
 02990 -10 -0739 Apr 03 08:25:25 20837 -33874 A -0.7897 0.9617 47.0S 162.7E 38 224 03m35s
 03034 -09 -0721 Apr 14 15:15:24 20544 -33651 A -0.7168 0.9681 37.4S 52.5E 44 163 03m15s
 03078 -08 -0703 Apr 24 21:59:40 20253 -33428 A -0.6379 0.9739 28.0S 54.9W 50 120 02m51s
 03122 -07 -0685 May 06 04:43:37 19964 -33205 A -0.5575 0.9793 19.1S 161.2W 56 88 02m23s
 03167 -06 -0667 May 16 11:25:24 19678 -32982 A -0.4740 0.9841 10.7S 93.9E 62 64 01m54s
 03212 -05 -0649 May 27 18:08:21 19393 -32759 A -0.3902 0.9884 2.9S 10.5W 67 44 01m25s
 03257 -04 -0631 Jun 07 00:52:54 19110 -32536 A -0.3066 0.9920 4.1N 114.5W 72 30 00m59s
 03304 -03 -0613 Jun 18 07:41:22 18830 -32313 A -0.2250 0.9951 10.3N 141.4E 77 18 00m35s
 03351 -02 -0595 Jun 28 14:34:50 18551 -32090 A -0.1466 0.9974 15.5N 36.8E 82 9 00m18s
 03398 -01 -0577 Jul 09 21:33:45 18275 -31867 A -0.0717 0.9993 19.5N 68.4W 86 2 00m04s
 03445 00 -0559 Jul 20 04:40:58 18001 -31644 H -0.0026 1.0006 22.3N 175.0W 90 2 00m04s

03490	01	-0541	Jul 31	11:56:09	17729	-31421	H	0.0611	1.0015	23.8N	76.7E	86	5	00m09s
03535	02	-0523	Aug 10	19:20:49	17458	-31198	H	0.1176	1.0020	24.1N	34.0W	83	7	00m12s
03580	03	-0505	Aug 22	02:54:54	17190	-30975	Hm	0.1674	1.0023	23.3N	147.1W	80	8	00m13s
03625	04	-0487	Sep 01	10:39:47	16882	-30752	H	0.2091	1.0023	21.5N	96.4E	78	8	00m13s
03669	05	-0469	Sep 12	18:34:28	16569	-30529	H	0.2437	1.0023	19.1N	23.0W	76	8	00m13s
03713	06	-0451	Sep 23	02:38:36	16265	-30306	H	0.2713	1.0024	16.1N	145.2W	74	9	00m13s
03757	07	-0433	Oct 04	10:52:17	15969	-30083	H	0.2920	1.0026	12.7N	89.9E	73	9	00m14s
03800	08	-0415	Oct 14	19:14:55	15681	-29860	H	0.3057	1.0031	9.2N	37.5W	72	11	00m17s
03842	09	-0397	Oct 26	03:44:28	15400	-29637	H	0.3148	1.0040	5.7N	166.7W	72	14	00m23s
03884	10	-0379	Nov 05	12:19:59	15127	-29414	H	0.3195	1.0052	2.5N	62.6E	71	19	00m31s
03925	11	-0361	Nov 16	20:59:44	14860	-29191	H	0.3213	1.0071	0.4S	69.1W	71	26	00m42s
03964	12	-0343	Nov 27	05:42:53	14599	-28968	H	0.3210	1.0094	2.7S	158.6E	71	34	00m57s
04004	13	-0325	Dec 08	14:25:47	14344	-28745	H	0.3213	1.0123	4.3S	26.5E	71	45	01m16s
04045	14	-0307	Dec 18	23:08:59	14095	-28522	H	0.3218	1.0156	5.0S	105.6W	71	57	01m38s
04086	15	-0289	Dec 30	07:48:35	13851	-28299	T	0.3258	1.0196	4.7S	123.3E	71	71	02m04s
04126	16	-0270	Jan 09	16:25:37	13612	-28076	T	0.3324	1.0240	3.4S	7.3W	71	86	02m30s
04166	17	-0252	Jan 21	00:55:45	13379	-27853	T	0.3453	1.0287	0.9S	136.3W	70	104	02m57s
04207	18	-0234	Jan 31	09:21:39	13150	-27630	T	0.3623	1.0337	2.5N	95.3E	69	122	03m24s
04248	19	-0216	Feb 11	17:39:22	12926	-27407	T	0.3864	1.0389	6.9N	31.4W	67	141	03m48s
04289	20	-0198	Feb 22	01:50:40	12706	-27184	T	0.4166	1.0441	12.2N	156.9W	65	161	04m10s
04331	21	-0180	Mar 04	09:53:23	12491	-26961	T	0.4546	1.0492	18.3N	79.3E	63	182	04m27s
04374	22	-0162	Mar 15	17:50:15	12279	-26738	T	0.4980	1.0540	25.1N	43.3W	60	205	04m40s
04417	23	-0144	Mar 26	01:39:38	12072	-26515	T	0.5482	1.0584	32.4N	164.5W	57	229	04m47s
04460	24	-0126	Apr 06	09:22:42	11868	-26292	T	0.6041	1.0623	40.3N	75.6E	53	255	04m48s
04503	25	-0108	Apr 16	16:59:52	11668	-26069	T	0.6655	1.0654	48.8N	43.1W	48	286	04m43s
04546	26	-0090	Apr 28	00:32:53	11471	-25846	T	0.7309	1.0677	57.7N	161.4W	43	324	04m32s
04590	27	-0072	May 08	08:01:55	11277	-25623	T	0.7997	1.0690	67.2N	79.8E	37	376	04m16s
04635	28	-0054	May 19	15:28:23	11086	-25400	T	0.8709	1.0691	77.4N	44.6W	29	463	03m55s

04680	29	-0036	May 29	22:53:45	10898	-25177	T	0.9432	1.0674	84.8N	122.3E	19	683	03m28s
04726	30	-0018	Jun 10	06:19:35	10712	-24954	P	1.0154	0.9954	67.1N	49.8W	0		
04772	31	0000	Jun 20	13:45:32	10529	-24731	P	1.0876	0.8552	66.1N	172.7W	0		
04818	32	0018	Jul 01	21:14:39	10349	-24508	P	1.1572	0.7197	65.1N	64.1E	0		
04864	33	0036	Jul 12	04:46:32	10170	-24285	P	1.2245	0.5888	64.2N	59.5W	0		
04909	34	0054	Jul 23	12:24:26	9993	-24062	P	1.2871	0.4677	63.4N	175.7E	0		
04953	35	0072	Aug 02	20:06:10	9817	-23839	P	1.3464	0.3533	62.6N	50.2E	0		
04997	36	0090	Aug 14	03:56:10	9643	-23616	P	1.3992	0.2521	62.0N	77.1W	0		
05042	37	0108	Aug 24	11:52:11	9469	-23393	P	1.4473	0.1608	61.5N	154.2E	0		
05086	38	0126	Sep 04	19:56:53	9297	-23170	P	1.4882	0.0838	61.2N	23.5E	0		
05130	39	0144	Sep 15	04:08:10	9125	-22947	Pe	1.5239	0.0176	61.0N	108.8W	0		

SAROS SERIES

57

Saros series 57 contains 73 solar eclipses.

[illegible]

ECLIPSE

02009	-36	-1161	Jun 17	00:39:38	28282	-39091	Pb	1.5268	0.0278	64.0N	136.6E	0
02055	-35	-1143	Jun 27	07:47:13	27941	-38868	P	1.4501	0.1683	65.0N	18.5E	0
02101	-34	-1125	Jul 08	15:01:08	27601	-38645	P	1.3775	0.3018	65.9N	101.6W	0
02146	-33	-1107	Jul 18	22:22:57	27264	-38422	P	1.3106	0.4253	66.9N	136.0E	0
02189	-32	-1089	Jul 30	05:53:04	26929	-38199	P	1.2493	0.5386	68.0N	10.9E	0
02232	-31	-1071	Aug 09	13:31:44	26596	-37976	P	1.1943	0.6404	69.0N	116.8W	0
02275	-30	-1053	Aug 20	21:20:11	26265	-37753	P	1.1466	0.7286	69.9N	112.5E	0
02318	-29	-1035	Aug 31	05:18:35	25936	-37530	P	1.1064	0.8027	70.7N	21.4W	0
02361	-28	-1017	Sep 11	13:25:49	25609	-37307	P	1.0730	0.8645	71.3N	158.1W	0
02403	-27	-0999	Sep 21	21:43:04	25284	-37084	P	1.0470	0.9123	71.7N	62.3E	0
02444	-26	-0981	Oct 03	06:08:45	24961	-36861	P	1.0273	0.9486	71.8N	79.7W	0
02485	-25	-0963	Oct 13	14:42:55	24640	-36638	P	1.0144	0.9726	71.7N	136.2E	0
02526	-24	-0945	Oct 24	23:21:52	24322	-36415	P	1.0049	0.9903	71.3N	8.9W	0
02567	-23	-0927	Nov 04	08:07:19	24005	-36192	P	1.0005	0.9990	70.6N	155.2W	0
02607	-22	-0909	Nov 15	16:55:23	23691	-35969	T+	0.9976	1.0050	69.8N	58.5E	0
02646	-21	-0891	Nov 26	01:45:53	23378	-35746	Tn	0.9966	1.0144	67.2N	89.5W	2 - 00m59s
02687	-20	-0873	Dec 07	10:35:08	23068	-35523	Tn	0.9943	1.0174	63.5N	125.3E	4 - 01m13s
02728	-19	-0855	Dec 17	19:23:47	22760	-35300	T	0.9913	1.0208	60.5N	17.2W	6 641 01m30s
02768	-18	-0837	Dec 29	04:08:34	22453	-35077	T	0.9848	1.0249	56.8N	157.0W	9 530 01m50s
02809	-17	-0818	Jan 08	12:48:46	22149	-34854	T	0.9745	1.0296	53.0N	66.0E	12 464 02m13s
02850	-16	-0800	Jan 19	21:23:02	21847	-34631	T	0.9588	1.0346	49.4N	68.2W	16 417 02m37s
02891	-15	-0782	Jan 30	05:50:56	21547	-34408	T	0.9378	1.0400	46.2N	160.3E	20 386 03m01s
02932	-14	-0764	Feb 10	14:10:56	21249	-34185	T	0.9100	1.0456	43.5N	31.8E	24 362 03m25s
02974	-13	-0746	Feb 20	22:23:27	20953	-33962	T	0.8758	1.0511	41.4N	93.9W	29 344 03m47s
03016	-12	-0728	Mar 03	06:28:10	20659	-33739	T	0.8348	1.0566	39.9N	143.1E	33 331 04m07s
03060	-11	-0710	Mar 14	14:25:57	20368	-33516	T	0.7877	1.0617	39.1N	22.4E	38 321 04m26s

03104	-10	-0692	Mar 24	22:15:10	20078	-33293	T	0.7332	1.0664	38.8N	95.3W	43	313	04m42s
03149	-09	-0674	Apr 05	05:58:48	19791	-33070	T	0.6740	1.0706	39.0N	148.9E	47	306	04m58s
03194	-08	-0656	Apr 15	13:35:56	19505	-32847	T	0.6092	1.0741	39.3N	35.4E	52	299	05m12s
03239	-07	-0638	Apr 26	21:09:26	19222	-32624	T	0.5412	1.0768	39.7N	76.6W	57	293	05m26s
03285	-06	-0620	May 07	04:37:21	18940	-32401	T	0.4686	1.0787	39.7N	173.3E	62	286	05m40s
03332	-05	-0602	May 18	12:04:25	18661	-32178	T	0.3953	1.0797	39.3N	63.8E	67	279	05m52s
03379	-04	-0584	May 28	19:28:50	18384	-31955	T	0.3201	1.0798	38.2N	45.0W	71	271	06m04s
03427	-03	-0566	Jun 09	02:53:49	18109	-31732	T	0.2456	1.0790	36.2N	154.2W	76	263	06m15s
03473	-02	-0548	Jun 19	10:18:38	17836	-31509	T	0.1712	1.0772	33.3N	96.2E	80	254	06m22s
03518	-01	-0530	Jun 30	17:46:57	17565	-31286	T	0.1000	1.0748	29.6N	15.0W	84	244	06m25s
03563	00	-0512	Jul 11	01:18:21	17296	-31063	Tm	0.0320	1.0714	25.2N	127.7W	88	232	06m21s
03608	01	-0494	Jul 22	08:53:54	17008	-30840	T	-0.0322	1.0674	20.2N	117.6E	88	220	06m11s
03652	02	-0476	Aug 01	16:35:33	16692	-30617	T	-0.0907	1.0627	14.7N	0.6E	85	207	05m53s
03696	03	-0458	Aug 13	00:23:29	16384	-30394	T	-0.1434	1.0577	9.0N	118.5W	82	192	05m29s
03739	04	-0440	Aug 23	08:18:57	16085	-30171	T	-0.1895	1.0523	3.1N	120.2E	79	176	04m59s
03783	05	-0422	Sep 03	16:20:38	15794	-29948	T	-0.2298	1.0468	3.0S	3.0W	77	160	04m26s
03825	06	-0404	Sep 14	00:30:59	15510	-29725	T	-0.2623	1.0412	8.9S	128.3W	75	142	03m52s
03867	07	-0386	Sep 25	08:48:00	15234	-29502	T	-0.2886	1.0357	14.7S	104.7E	73	125	03m19s
03909	08	-0368	Oct 05	17:12:24	14964	-29279	T	-0.3083	1.0304	20.3S	23.7W	72	108	02m48s
03948	09	-0350	Oct 17	01:42:35	14701	-29056	T	-0.3226	1.0254	25.6S	153.1W	71	91	02m19s
03988	10	-0332	Oct 27	10:19:14	14444	-28833	T	-0.3312	1.0209	30.4S	76.5E	70	75	01m53s
04029	11	-0314	Nov 07	18:59:06	14192	-28610	H3	-0.3363	1.0168	34.7S	53.9W	70	61	01m30s
04070	12	-0296	Nov 18	03:41:28	13946	-28387	H	-0.3389	1.0133	38.3S	176.0E	70	49	01m11s
04110	13	-0278	Nov 29	12:24:41	13706	-28164	H	-0.3401	1.0103	41.1S	46.6E	70	38	00m55s
04150	14	-0260	Dec 09	21:08:14	13470	-27941	H	-0.3409	1.0079	43.0S	82.2W	70	29	00m42s
04191	15	-0242	Dec 21	05:48:07	13240	-27718	H	-0.3441	1.0060	44.0S	150.5E	70	22	00m32s
04232	16	-0224	Dec 31	14:24:47	13014	-27495	H	-0.3495	1.0046	43.9S	24.1E	69	17	00m24s
04273	17	-0205	Jan 11	22:55:00	12792	-27272	H	-0.3598	1.0036	43.0S	100.8W	69	13	00m19s

04314 18 -0187 Jan 22 07:19:53 12575 -27049 H -0.3741 1.0028 41.4S 135.2E 68 11 00m15s
 04357 19 -0169 Feb 02 15:34:27 12362 -26826 H -0.3964 1.0023 39.4S 13.2E 66 9 00m12s
 04401 20 -0151 Feb 12 23:42:12 12153 -26603 H -0.4239 1.0019 37.1S 107.6W 65 7 00m10s
 04444 21 -0133 Feb 24 07:38:33 11948 -26380 H -0.4601 1.0015 34.9S 134.0E 62 6 00m08s
 04487 22 -0115 Mar 06 15:26:42 11746 -26157 H -0.5024 1.0009 32.9S 17.3E 60 4 00m05s
 04530 23 -0097 Mar 17 23:02:59 11548 -25934 H -0.5539 1.0001 31.4S 96.6W 56 0 00m00s
 04573 24 -0079 Mar 28 06:31:33 11353 -25711 A -0.6108 0.9989 30.7S 151.3E 52 5 00m06s
 04618 25 -0061 Apr 08 13:49:15 11161 -25488 A -0.6756 0.9971 31.0S 41.9E 47 14 00m16s
 04663 26 -0043 Apr 18 20:59:08 10972 -25265 A -0.7460 0.9947 32.7S 65.6W 42 27 00m29s
 04709 27 -0025 Apr 30 04:00:34 10785 -25042 A -0.8220 0.9915 36.3S 170.7W 34 51 00m47s
 04755 28 -0007 May 10 10:56:39 10601 -24819 A -0.9012 0.9872 42.4S 86.1E 25 102 01m09s
 04800 29 0011 May 21 17:47:07 10420 -24596 A -0.9838 0.9804 55.4S 10.8W 9 411 01m36s
 04846 30 0029 Jun 01 00:33:40 10240 -24373 P -1.0684 0.8606 63.7S 111.2W 0
 04892 31 0047 Jun 12 07:18:22 10062 -24150 P -1.1530 0.7087 64.6S 137.2E 0
 04936 32 0065 Jun 22 14:02:12 9886 -23927 P -1.2369 0.5592 65.5S 25.5E 0
 04980 33 0083 Jul 03 20:46:30 9711 -23704 P -1.3191 0.4139 66.5S 86.7W 0
 05025 34 0101 Jul 14 03:33:01 9538 -23481 P -1.3982 0.2753 67.5S 160.1E 0
 05069 35 0119 Jul 25 10:23:34 9365 -23258 P -1.4729 0.1459 68.5S 45.4E 0
 05113 36 0137 Aug 04 17:19:28 9193 -23035 Pe -1.5418 0.0280 69.5S 71.2W 0

SAROS SERIES

58

Saros series 58 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
02128	-37	-1114 Jun 07	23:16:36	27397	-38510	Pb	-1.5122	0.0354	67.9S	43.0W	0		
02172	-36	-1096 Jun 18	06:37:55	27061	-38287	P	-1.4461	0.1636	67.0S	166.0W	0		
02215	-35	-1078 Jun 29	13:59:55	26727	-38064	P	-1.3808	0.2894	66.0S	71.4E	0		
02258	-34	-1060 Jul 09	21:26:24	26395	-37841	P	-1.3195	0.4067	65.0S	51.9W	0		
02301	-33	-1042 Jul 21	04:56:30	26065	-37618	P	-1.2617	0.5163	64.1S	175.7W	0		
02345	-32	-1024 Jul 31	12:33:16	25737	-37395	P	-1.2098	0.6136	63.3S	59.1E	0		
02387	-31	-1006 Aug 11	20:15:48	25412	-37172	P	-1.1631	0.7002	62.5S	67.2W	0		
02428	-30	-0988 Aug 22	04:05:11	25088	-36949	P	-1.1224	0.7744	61.8S	165.0E	0		
02469	-29	-0970 Sep 02	12:01:56	24767	-36726	P	-1.0884	0.8356	61.3S	35.5E	0		
02510	-28	-0952 Sep 12	20:06:34	24447	-36503	P	-1.0613	0.8832	60.9S	95.8W	0		
02551	-27	-0934 Sep 24	04:18:02	24130	-36280	P	-1.0405	0.9188	60.7S	131.4E	0		
02591	-26	-0916 Oct 04	12:36:34	23814	-36057	P	-1.0263	0.9422	60.7S	3.3W	0		
02631	-25	-0898 Oct 15	21:00:40	23501	-35834	P	-1.0172	0.9563	60.8S	139.2W	0		
02671	-24	-0880 Oct 26	05:30:05	23190	-35611	P	-1.0132	0.9612	61.1S	83.4E	0		
02712	-23	-0862 Nov 06	14:01:39	22881	-35388	P	-1.0119	0.9616	61.5S	54.6W	0		
02752	-22	-0844 Nov 16	22:36:23	22574	-35165	P	-1.0139	0.9562	62.2S	166.5E	0		
02792	-21	-0826 Nov 28	07:10:28	22269	-34942	P	-1.0166	0.9500	62.9S	27.5E	0		

02833 -20 -0808 Dec 08 15:43:51 21966 -34719 P -1.0193 0.9441 63.8S 111.5W 0
 02874 -19 -0790 Dec 20 00:12:19 21665 -34496 P -1.0187 0.9441 64.8S 110.4E 0
 02915 -18 -0772 Dec 30 08:37:21 21366 -34273 P -1.0163 0.9477 65.8S 27.2W 0
 02957 -17 -0753 Jan 10 16:55:10 21070 -34050 P -1.0091 0.9600 66.9S 163.5W 0
 02999 -16 -0735 Jan 21 01:05:13 20775 -33827 As -0.9961 0.9621 70.4S 60.2E 3 - 02m04s
 03043 -15 -0717 Feb 01 09:05:52 20483 -33604 A -0.9766 0.9643 78.7S 95.2W 12 644 02m07s
 03087 -14 -0699 Feb 11 16:57:17 20192 -33381 A -0.9500 0.9659 78.5S 95.9E 18 405 02m11s
 03132 -13 -0681 Feb 23 00:38:26 19904 -33158 A -0.9160 0.9674 72.7S 51.3W 23 296 02m16s
 03177 -12 -0663 Mar 05 08:08:37 19618 -32935 A -0.8739 0.9688 64.8S 179.2E 29 231 02m22s
 03222 -11 -0645 Mar 16 15:28:41 19333 -32712 A -0.8244 0.9699 56.3S 58.2E 34 190 02m29s
 03267 -10 -0627 Mar 26 22:38:48 19051 -32489 A -0.7674 0.9709 47.5S 57.6W 40 161 02m38s
 03313 -09 -0609 Apr 07 05:39:06 18771 -32266 A -0.7033 0.9715 38.6S 169.7W 45 142 02m49s
 03360 -08 -0591 Apr 17 12:31:12 18493 -32043 A -0.6331 0.9716 29.8S 81.3E 51 130 03m03s
 03408 -07 -0573 Apr 28 19:16:00 18217 -31820 A -0.5575 0.9713 21.1S 25.2W 56 123 03m19s
 03455 -06 -0555 May 09 01:55:29 17943 -31597 A -0.4784 0.9704 12.7S 129.6W 61 120 03m38s
 03500 -05 -0537 May 20 08:29:05 17671 -31374 A -0.3950 0.9690 4.7S 128.1E 67 121 03m58s
 03545 -04 -0519 May 30 15:00:44 17402 -31151 A -0.3107 0.9671 2.8N 27.1E 72 125 04m19s
 03590 -03 -0501 Jun 10 21:30:01 17134 -30928 A -0.2247 0.9647 9.6N 72.5W 77 131 04m40s
 03635 -02 -0483 Jun 21 04:00:44 16815 -30705 A -0.1407 0.9618 15.6N 171.8W 82 140 04m58s
 03678 -01 -0465 Jul 02 10:31:43 16504 -30482 Am -0.0573 0.9584 20.6N 89.7E 87 152 05m16s
 03722 00 -0447 Jul 12 17:07:51 16202 -30259 A 0.0214 0.9546 24.4N 9.2W 89 166 05m31s
 03766 01 -0429 Jul 23 23:47:53 15908 -30036 A 0.0966 0.9505 27.1N 108.5W 84 182 05m48s
 03808 02 -0411 Aug 03 06:34:26 15621 -29813 A 0.1660 0.9464 28.5N 150.9E 80 200 06m05s
 03850 03 -0393 Aug 14 13:27:45 15342 -29590 A 0.2293 0.9419 28.8N 48.6E 77 220 06m25s
 03892 04 -0375 Aug 24 20:29:30 15070 -29367 A 0.2851 0.9376 28.0N 56.1W 73 241 06m47s
 03933 05 -0357 Sep 05 03:40:10 14804 -29144 A 0.3334 0.9333 26.4N 163.5W 70 262 07m13s
 03972 06 -0339 Sep 15 10:58:24 14544 -28921 A 0.3753 0.9293 24.2N 86.7E 68 283 07m41s
 04013 07 -0321 Sep 26 18:26:32 14291 -28698 A 0.4086 0.9256 21.6N 26.2W 66 303 08m14s

04054	08	-0303	Oct 07	02:02:17	14043	-28475	A	0.4353	0.9223	18.8N	141.4W	64	321	08m49s
04095	09	-0285	Oct 18	09:46:36	13800	-28252	A	0.4547	0.9195	15.9N	100.9E	63	337	09m27s
04135	10	-0267	Oct 28	17:36:16	13563	-28029	A	0.4695	0.9174	13.1N	18.4W	62	350	10m06s
04175	11	-0249	Nov 09	01:32:18	13330	-27806	A	0.4792	0.9158	10.6N	139.4W	61	360	10m44s
04216	12	-0231	Nov 19	09:31:10	13102	-27583	A	0.4864	0.9150	8.5N	98.9E	61	366	11m19s
04256	13	-0213	Nov 30	17:32:23	12879	-27360	A	0.4916	0.9148	7.0N	23.3W	61	370	11m47s
04297	14	-0195	Dec 11	01:33:19	12660	-27137	A	0.4971	0.9153	6.3N	145.5W	60	370	12m04s
04339	15	-0177	Dec 22	09:33:34	12446	-26914	A	0.5030	0.9165	6.4N	92.6E	60	367	12m08s
04383	16	-0158	Jan 01	17:29:28	12235	-26691	A	0.5128	0.9184	7.4N	28.4W	59	361	11m54s
04426	17	-0140	Jan 13	01:20:54	12028	-26468	A	0.5265	0.9208	9.6N	148.4W	58	352	11m25s
04469	18	-0122	Jan 23	09:05:39	11825	-26245	A	0.5456	0.9237	12.7N	93.0E	57	343	10m42s
04512	19	-0104	Feb 03	16:44:32	11626	-26022	A	0.5696	0.9270	16.8N	24.5W	55	332	09m50s
04555	20	-0086	Feb 14	00:13:10	11429	-25799	A	0.6022	0.9307	22.1N	140.0W	53	323	08m51s
04600	21	-0068	Feb 25	07:35:07	11236	-25576	A	0.6405	0.9345	28.2N	105.7E	50	315	07m51s
04645	22	-0050	Mar 07	14:46:58	11046	-25353	A	0.6874	0.9383	35.2N	6.8W	46	312	06m51s
04690	23	-0032	Mar 17	21:52:49	10859	-25130	A	0.7394	0.9421	43.1N	118.6W	42	314	05m54s
04737	24	-0014	Mar 29	04:48:09	10674	-24907	A	0.8002	0.9456	52.0N	130.3E	37	331	05m02s
04782	25	0004	Apr 08	11:39:14	10491	-24684	A	0.8647	0.9486	61.7N	16.8E	30	375	04m15s
04828	26	0022	Apr 19	18:22:41	10311	-24461	A	0.9361	0.9506	72.1N	108.8W	20	523	03m35s
04874	27	0040	Apr 30	01:03:17	10132	-24238	A+	1.0100	0.9522	70.5N	70.2E	0		
04919	28	0058	May 11	07:39:16	9955	-24015	P	1.0882	0.8176	69.7N	42.0W	0		
04963	29	0076	May 21	14:15:48	9780	-23792	P	1.1664	0.6818	68.8N	153.8W	0		
05007	30	0094	Jun 01	20:51:32	9606	-23569	P	1.2458	0.5428	67.8N	95.1E	0		
05052	31	0112	Jun 12	03:29:03	9433	-23346	P	1.3243	0.4048	66.8N	15.8W	0		
05096	32	0130	Jun 23	10:09:31	9261	-23123	P	1.4009	0.2693	65.8N	127.1W	0		
05140	33	0148	Jul 03	16:55:07	9089	-22900	P	1.4741	0.1394	64.9N	120.8E	0		
05182	34	0166	Jul 14	23:46:42	8918	-22677	Pe	1.5428	0.0170	64.0N	7.4E	0		

SAROS SERIES

59

Saros series 59 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

02328	-34	-1031	Jun 19	16:52:11	25866	-37483	Pb	1.5201	0.0725	64.4N	120.2W	0	
02371	-33	-1013	Jun 30	23:18:09	25540	-37260	P	1.4411	0.2084	65.3N	132.0E	0	
02413	-32	-0995	Jul 11	05:47:29	25216	-37037	P	1.3644	0.3397	66.3N	23.1E	0	
02453	-31	-0977	Jul 22	12:24:38	24893	-36814	P	1.2935	0.4606	67.4N	88.3W	0	
02494	-30	-0959	Aug 01	19:07:23	24573	-36591	P	1.2266	0.5739	68.4N	158.5E	0	
02535	-29	-0941	Aug 13	02:00:51	24255	-36368	P	1.1678	0.6727	69.4N	41.9E	0	
02575	-28	-0923	Aug 23	09:02:15	23939	-36145	P	1.1154	0.7604	70.2N	77.2W	0	
02615	-27	-0905	Sep 03	16:13:39	23625	-35922	P	1.0707	0.8345	71.0N	160.6E	0	
02655	-26	-0887	Sep 13	23:34:23	23313	-35699	P	1.0333	0.8962	71.5N	35.4E	0	
02696	-25	-0869	Sep 25	07:05:47	23003	-35476	A+	1.0040	0.9441	71.8N	92.9W	0	
02737	-24	-0851	Oct 05	14:45:26	22695	-35253	An	0.9814	0.9125	68.7N	107.9E	10	- 06m55s

02776	-23	-0833	Oct 16	22:32:57	22389	-35030	A	0.9646	0.9123	63.2N	27.7W	15	1300	07m34s
02817	-22	-0815	Oct 27	06:27:12	22085	-34807	A	0.9531	0.9122	58.6N	157.6W	17	1123	08m07s
02858	-21	-0797	Nov 07	14:27:26	21784	-34584	A	0.9458	0.9124	54.8N	73.7E	18	1041	08m34s
02899	-20	-0779	Nov 17	22:30:21	21484	-34361	A	0.9403	0.9132	51.6N	54.6W	19	984	08m53s
02940	-19	-0761	Nov 29	06:36:00	21187	-34138	A	0.9364	0.9145	49.0N	177.1E	20	940	09m04s
02982	-18	-0743	Dec 09	14:40:59	20891	-33915	A	0.9312	0.9166	46.6N	49.2E	21	881	09m04s
03025	-17	-0725	Dec 20	22:45:21	20598	-33692	A	0.9249	0.9194	44.5N	78.1W	22	812	08m54s
03070	-16	-0707	Dec 31	06:44:38	20307	-33469	A	0.9136	0.9230	42.2N	156.4E	24	718	08m34s
03114	-15	-0688	Jan 11	14:40:44	20017	-33246	A	0.8989	0.9273	40.0N	32.1E	26	621	08m04s
03159	-14	-0670	Jan 21	22:29:38	19730	-33023	A	0.8774	0.9323	37.8N	89.5W	28	521	07m27s
03204	-13	-0652	Feb 02	06:12:01	19445	-32800	A	0.8498	0.9378	35.9N	151.2E	32	429	06m42s
03249	-12	-0634	Feb 12	13:45:47	19162	-32577	A	0.8144	0.9438	34.2N	34.9E	35	348	05m55s
03295	-11	-0616	Feb 23	21:12:39	18881	-32354	A	0.7725	0.9501	33.0N	79.0W	39	280	05m06s
03342	-10	-0598	Mar 06	04:31:34	18602	-32131	A	0.7228	0.9565	32.2N	169.8E	44	223	04m19s
03389	-09	-0580	Mar 16	11:42:18	18326	-31908	A	0.6657	0.9631	31.9N	61.3E	48	174	03m34s
03436	-08	-0562	Mar 27	18:46:43	18051	-31685	A	0.6023	0.9695	31.8N	45.0W	53	134	02m53s
03482	-07	-0544	Apr 07	01:45:15	17778	-31462	A	0.5332	0.9758	32.0N	149.2W	58	100	02m15s
03527	-06	-0526	Apr 18	08:39:23	17508	-31239	A	0.4593	0.9818	32.2N	108.1E	62	72	01m41s
03572	-05	-0508	Apr 28	15:29:32	17239	-31016	A	0.3809	0.9874	32.1N	6.9E	67	48	01m11s
03617	-04	-0490	May 09	22:18:35	16941	-30793	A	0.3004	0.9924	31.6N	94.0W	72	28	00m43s
03662	-03	-0472	May 20	05:06:50	16626	-30570	A	0.2182	0.9970	30.5N	165.4E	77	11	00m17s
03706	-02	-0454	May 31	11:55:38	16320	-30347	H	0.1354	1.0010	28.6N	64.5E	82	3	00m06s
03749	-01	-0436	Jun 10	18:47:03	16023	-30124	H	0.0536	1.0043	25.8N	37.5W	87	15	00m27s
03792	00	-0418	Jun 22	01:42:32	15733	-29901	H	-0.0257	1.0071	22.3N	141.1W	89	25	00m46s
03834	01	-0400	Jul 02	08:43:41	15451	-29678	H	-0.1015	1.0092	18.0N	113.3E	84	32	01m01s
03876	02	-0382	Jul 13	15:50:17	15177	-29455	Hm	-0.1735	1.0107	13.0N	5.6E	80	38	01m12s
03917	03	-0364	Jul 23	23:05:36	14908	-29232	H	-0.2391	1.0118	7.6N	105.0W	76	42	01m19s
03956	04	-0346	Aug 04	06:28:34	14646	-29009	H	-0.2990	1.0123	1.9N	142.0E	73	44	01m22s

03996 05 -0328 Aug 14 14:00:58 14390 -28786 H -0.3519 1.0126 4.1S 26.2E 69 46 01m21s
 04037 06 -0310 Aug 25 21:42:10 14140 -28563 H -0.3981 1.0124 10.2S 92.1W 66 47 01m18s
 04079 07 -0292 Sep 05 05:33:58 13895 -28340 H -0.4363 1.0123 16.2S 146.8E 64 47 01m14s
 04119 08 -0274 Sep 16 13:35:23 13656 -28117 H -0.4671 1.0120 22.2S 23.3E 62 46 01m09s
 04159 09 -0256 Sep 26 21:45:25 13421 -27894 H -0.4915 1.0119 27.9S 102.0W 60 47 01m06s
 04200 10 -0238 Oct 08 06:05:19 13192 -27671 H -0.5085 1.0118 33.4S 130.6E 59 47 01m03s
 04241 11 -0220 Oct 18 14:32:51 12967 -27448 H -0.5201 1.0122 38.6S 2.0E 58 49 01m03s
 04282 12 -0202 Oct 29 23:07:46 12746 -27225 H -0.5261 1.0129 43.3S 127.5W 58 52 01m05s
 04323 13 -0184 Nov 09 07:46:40 12530 -27002 H -0.5296 1.0140 47.6S 103.1E 58 57 01m08s
 04366 14 -0166 Nov 20 16:31:00 12318 -26779 T -0.5293 1.0157 51.1S 26.1W 58 64 01m15s
 04409 15 -0148 Dec 01 01:16:43 12110 -26556 T -0.5288 1.0179 53.7S 154.3W 58 72 01m23s
 04452 16 -0130 Dec 12 10:03:40 11905 -26333 T -0.5279 1.0206 55.3S 78.4E 58 83 01m35s
 04495 17 -0112 Dec 22 18:48:32 11704 -26110 T -0.5295 1.0238 55.7S 47.7W 58 96 01m47s
 04538 18 -0093 Jan 03 03:31:36 11507 -25887 T -0.5331 1.0275 55.0S 173.5W 58 110 02m02s
 04583 19 -0075 Jan 13 12:09:37 11312 -25664 T -0.5414 1.0315 53.4S 61.3E 57 127 02m19s
 04628 20 -0057 Jan 24 20:42:31 11121 -25441 T -0.5546 1.0359 51.1S 63.7W 56 145 02m36s
 04673 21 -0039 Feb 04 05:08:41 10932 -25218 T -0.5739 1.0404 48.5S 172.1E 55 164 02m54s
 04719 22 -0021 Feb 15 13:28:32 10746 -24995 T -0.5991 1.0450 45.8S 48.5E 53 186 03m13s
 04765 23 -0003 Feb 25 21:39:39 10563 -24772 T -0.6319 1.0495 43.4S 73.5W 51 209 03m31s
 04810 24 0015 Mar 09 05:44:12 10382 -24549 T -0.6707 1.0537 41.3S 165.7E 48 236 03m49s
 04856 25 0033 Mar 19 13:40:16 10202 -24326 T -0.7168 1.0576 40.1S 46.9E 44 267 04m06s
 04901 26 0051 Mar 30 21:31:07 10025 -24103 T -0.7681 1.0609 39.8S 70.7W 40 305 04m21s
 04945 27 0069 Apr 10 05:13:17 9849 -23880 T -0.8268 1.0633 41.0S 174.1E 34 361 04m31s
 04989 28 0087 Apr 21 12:52:07 9675 -23657 T -0.8888 1.0647 44.1S 60.2E 27 453 04m34s
 05034 29 0105 May 01 20:24:44 9501 -23434 T -0.9559 1.0643 50.7S 49.6W 17 716 04m21s
 05078 30 0123 May 13 03:55:44 9329 -23211 P -1.0248 0.9772 62.4S 149.9W 0
 05122 31 0141 May 23 11:22:17 9157 -22988 P -1.0973 0.8366 63.2S 88.5E 0
 05165 32 0159 Jun 03 18:49:41 8986 -22765 P -1.1694 0.6964 64.0S 33.6W 0

05206 33 0177 Jun 14 02:15:28 8815 -22542 P -1.2424 0.5543 64.9S 155.6W 0

05247 34 0195 Jun 25 09:43:24 8644 -22319 P -1.3136 0.4157 65.9S 81.5E 0

05288 35 0213 Jul 05 17:12:35 8473 -22096 P -1.3835 0.2801 66.9S 42.0W 0

05329 36 0231 Jul 17 00:46:30 8301 -21873 P -1.4492 0.1531 67.9S 167.3W 0

05370 37 0249 Jul 27 08:24:29 8130 -21650 Pe -1.5113 0.0341 68.8S 66.0E 0

SAROS SERIES

60

Saros series 60 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

02354 -36 -1020 May 18 22:05:51 25669 -37348 Pb -1.5290 0.0219 69.6S 12.6W 0

02396 -35 -1002 May 30 05:07:56 25343 -37125 P -1.4485 0.1695 68.7S 131.5W 0

02437 -34 -0984 Jun 09 12:13:01 25020 -36902 P -1.3689 0.3165 67.7S 109.3E 0

02478 -33 -0966 Jun 20 19:22:47 24699 -36679 P -1.2918 0.4598 66.7S 10.5W 0

02519 -32 -0948 Jul 01 02:36:52 24380 -36456 P -1.2170 0.5994 65.7S 130.9W 0

02560 -31 -0930 Jul 12 09:58:18 24063 -36233 P -1.1471 0.7302 64.7S 107.3E 0

02600 -30 -0912 Jul 22 17:26:11 23748 -36010 P -1.0815 0.8530 63.8S 15.8W 0

02639 -29 -0894 Aug 03 01:03:26 23435 -35787 P -1.0228 0.9629 63.0S 140.8W 0

02680 -28 -0876 Aug 13 08:47:40 23125 -35564 T -0.9692 1.0250 52.1S 109.5E 14 349 01m50s

02721 -27 -0858 Aug 24 16:42:49 22816 -35341 T -0.9238 1.0271 46.2S 8.9W 22 236 02m03s

02761 -26 -0840 Sep 04 00:45:59 22509 -35118 T -0.8844 1.0280 43.8S 131.2W 27 199 02m06s

02801 -25 -0822 Sep 15 08:59:19 22205 -34895 T -0.8531 1.0283 43.5S 103.1E 31 180 02m06s

02842 -24 -0804 Sep 25 17:20:29 21902 -34672 T -0.8278 1.0284 44.7S 24.7W 34 167 02m03s

02883 -23 -0786 Oct 07 01:50:51 21602 -34449 T -0.8099 1.0284 47.1S 155.1W 36 161 01m59s

02924 -22 -0768 Oct 17 10:27:38 21304 -34226 T -0.7967 1.0284 50.2S 73.0E 37 157 01m56s

02965 -21 -0750 Oct 28 19:10:19 21008 -34003 T -0.7881 1.0288 54.0S 60.2W 38 156 01m55s

03007 -20 -0732 Nov 08 03:57:44 20713 -33780 T -0.7831 1.0293 58.2S 166.0E 38 158 01m54s

03051 -19 -0714 Nov 19 12:48:45 20421 -33557 T -0.7812 1.0304 62.6S 32.3E 38 164 01m56s

03096 -18 -0696 Nov 29 21:40:32 20131 -33334 T -0.7793 1.0318 66.8S 99.5W 39 172 02m00s

03141 -17 -0678 Dec 11 06:31:58 19843 -33111 T -0.7772 1.0338 70.5S 132.2E 39 182 02m06s

03186 -16 -0660 Dec 21 15:21:15 19557 -32888 T -0.7731 1.0364 73.1S 9.2E 39 194 02m15s

03231 -15 -0641 Jan 02 00:07:37 19274 -32665 T -0.7666 1.0394 73.8S 109.0W 40 207 02m26s

03277 -14 -0623 Jan 12 08:47:53 18992 -32442 T -0.7552 1.0428 72.1S 133.7E 41 220 02m41s

03323 -13 -0605 Jan 23 17:23:02 18712 -32219 T -0.7396 1.0467 68.4S 12.9E 42 232 02m59s

03370 -12 -0587 Feb 03 01:50:15 18435 -31996 T -0.7174 1.0508 63.3S 110.7W 44 242 03m21s

03418 -11 -0569 Feb 14 10:10:41 18159 -31773 T -0.6896 1.0551 57.4S 124.1E 46 251 03m45s

03464 -10 -0551 Feb 24 18:21:56 17886 -31550 T -0.6543 1.0593 50.7S 0.9W 49 257 04m13s

03509 -09 -0533 Mar 08 02:26:22 17614 -31327 T -0.6132 1.0635 43.5S 125.3W 52 262 04m44s

03554 -08 -0515 Mar 18 10:22:33 17345 -31104 T -0.5654 1.0673 36.1S 111.8E 55 265 05m15s

03599 -07 -0497 Mar 29 18:11:18 17067 -30881 T -0.5113 1.0708 28.4S 9.6W 59 267 05m47s

03644 -06 -0479 Apr 09 01:53:28 16749 -30658 T -0.4515 1.0737 20.6S 129.6W 63 267 06m16s

03688 -05 -0461 Apr 20 09:30:02 16440 -30435 T -0.3870 1.0760 12.8S 112.0E 67 266 06m42s

03732 -04 -0443 Apr 30 17:02:20 16139 -30212 T -0.3188 1.0774 5.1S 5.0W 71 264 07m01s

03776 -03 -0425 May 12 00:29:44 15847 -29989 T -0.2467 1.0782 2.4N 120.3W 76 260 07m12s

03818 -02 -0407 May 22 07:55:23 15562 -29766 T -0.1732 1.0779 9.4N 125.5E 80 256 07m13s

03860 -01 -0389 Jun 02 15:19:08 15284 -29543 T -0.0980 1.0769 15.9N 12.4E 84 250 07m04s

03902 00 -0371 Jun 12 22:43:10 15013 -29320 Tm -0.0234 1.0749 21.7N 99.8W 89 243 06m46s

03941 01 -0353 Jun 24 06:07:24 14749 -29097 T 0.0505 1.0721 26.7N 148.8E 87 235 06m22s

03980 02 -0335 Jul 04 13:35:01 14491 -28874 T 0.1213 1.0685 30.6N 37.4E 83 225 05m53s

04021 03 -0317 Jul 15 21:05:41 14238 -28651 T 0.1890 1.0642 33.4N 74.0W 79 214 05m21s

04062 04 -0299 Jul 26 04:40:36 13991 -28428 T 0.2527 1.0593 35.0N 174.0E 75 201 04m50s

04103 05 -0281 Aug 06 12:20:45 13750 -28205 T 0.3114 1.0539 35.4N 60.7E 72 187 04m18s

04143 06 -0263 Aug 16 20:07:28 13513 -27982 T 0.3639 1.0480 34.8N 54.5W 68 171 03m48s

04184 07 -0245 Aug 28 04:01:10 13282 -27759 T 0.4102 1.0420 33.2N 172.1W 66 153 03m19s

04225 08 -0227 Sep 07 12:01:32 13055 -27536 T 0.4503 1.0359 31.1N 68.0E 63 134 02m52s

04266 09 -0209 Sep 18 20:09:46 12833 -27313 T 0.4835 1.0298 28.5N 54.5W 61 114 02m25s

04307 10 -0191 Sep 29 04:25:30 12615 -27090 T 0.5099 1.0238 25.7N 179.6W 59 93 01m59s

04349 11 -0173 Oct 10 12:47:45 12401 -26867 T 0.5303 1.0183 22.7N 53.2E 58 73 01m35s

04393 12 -0155 Oct 20 21:16:23 12191 -26644 H 0.5448 1.0130 19.8N 75.9W 57 53 01m10s

04435 13 -0137 Nov 01 05:49:52 11985 -26421 H 0.5549 1.0083 17.2N 153.6E 56 34 00m47s

04478 14 -0119 Nov 11 14:27:46 11783 -26198 H 0.5607 1.0041 14.8N 21.8E 56 17 00m24s

04521 15 -0101 Nov 22 23:06:25 11584 -25975 H 0.5654 1.0005 12.9N 110.1W 55 2 00m03s

04564 16 -0083 Dec 03 07:47:15 11388 -25752 A 0.5675 0.9974 11.6N 117.4E 55 11 00m16s

04609 17 -0065 Dec 14 16:26:07 11196 -25529 A 0.5702 0.9949 11.0N 14.5W 55 22 00m33s

04654 18 -0047 Dec 25 01:02:53 11006 -25306 A 0.5744 0.9930 11.3N 145.9W 55 30 00m47s

04700 19 -0028 Jan 05 09:33:30 10819 -25083 A 0.5827 0.9915 12.6N 84.1E 54 37 00m58s

04747 20 -0010 Jan 15 17:59:33 10635 -24860 A 0.5941 0.9903 14.9N 44.8W 53 42 01m05s

04792 21 0008 Jan 27 02:17:23 10453 -24637 A 0.6115 0.9895 18.2N 172.1W 52 47 01m09s

04838 22 0026 Feb 06 10:26:56 10273 -24414 A 0.6348 0.9888 22.5N 62.4E 50 51 01m12s

04884 23 0044 Feb 17 18:26:46 10095 -24191 A 0.6653 0.9881 27.9N 61.2W 48 56 01m13s

04928 24 0062 Feb 28 02:17:27 9918 -23968 A 0.7028 0.9874 34.1N 176.9E 45 62 01m14s

SAROS SERIES

61

Saros series 61 contains 71 solar eclipses.

ECLIPSE

02462	-36	-0973	May 10	20:50:26	24826	-36767	Pb	1.5114	0.0379	61.8N	150.2W	0
02503	-35	-0955	May 21	04:09:23	24506	-36544	P	1.4428	0.1701	62.4N	89.6E	0
02544	-34	-0937	Jun 01	11:26:28	24188	-36321	P	1.3729	0.3043	63.1N	30.2W	0
02584	-33	-0919	Jun 11	18:43:06	23872	-36098	P	1.3032	0.4376	63.9N	150.2W	0
02624	-32	-0901	Jun 23	02:01:09	23559	-35875	P	1.2351	0.5666	64.8N	89.2E	0
02664	-31	-0883	Jul 03	09:21:33	23247	-35652	P	1.1699	0.6894	65.7N	32.3W	0
02705	-30	-0865	Jul 14	16:44:39	22938	-35429	P	1.1075	0.8054	66.7N	154.8W	0
02745	-29	-0847	Jul 25	00:12:34	22630	-35206	P	1.0497	0.9115	67.7N	81.0E	0
02785	-28	-0829	Aug 05	07:46:01	22325	-34983	T+	0.9972	1.0064	68.7N	45.2W	0
02826	-27	-0811	Aug 15	15:26:27	22022	-34760	T	0.9514	1.0121	79.2N	127.4E	17 140 00m42s
02867	-26	-0793	Aug 26	23:12:24	21720	-34537	T	0.9110	1.0076	73.2N	26.9W	24 65 00m29s
02908	-25	-0775	Sep 06	07:07:03	21421	-34314	H	0.8785	1.0025	66.2N	160.1W	28 18 00m10s
02949	-24	-0757	Sep 17	15:08:17	21124	-34091	A	0.8522	0.9970	59.6N	70.9E	31 20 00m13s
02991	-23	-0739	Sep 27	23:17:35	20829	-33868	A	0.8331	0.9916	53.8N	57.9W	33 53 00m40s
03035	-22	-0721	Oct 09	07:32:07	20536	-33645	A	0.8192	0.9863	48.5N	172.9E	35 84 01m09s
03079	-21	-0703	Oct 19	15:53:39	20245	-33422	A	0.8117	0.9813	44.1N	42.6E	35 113 01m40s
03123	-20	-0685	Oct 31	00:18:57	19957	-33199	A	0.8080	0.9767	40.3N	88.4W	36 140 02m11s
03168	-19	-0667	Nov 10	08:47:36	19670	-32976	A	0.8077	0.9726	37.3N	140.0E	36 166 02m42s
03213	-18	-0649	Nov 21	17:17:39	19385	-32753	A	0.8092	0.9690	34.9N	8.1E	36 189 03m11s
03258	-17	-0631	Dec 02	01:48:06	19103	-32530	A	0.8116	0.9662	33.0N	124.0W	35 209 03m35s
03305	-16	-0613	Dec 13	10:16:03	18822	-32307	A	0.8129	0.9638	31.7N	104.6E	35 225 03m55s
03352	-15	-0595	Dec 23	18:39:43	18544	-32084	A	0.8114	0.9622	30.6N	25.7W	36 235 04m09s
03399	-14	-0576	Jan 04	02:58:21	18268	-31861	A	0.8066	0.9611	29.9N	154.7W	36 238 04m17s
03446	-13	-0558	Jan 14	11:10:14	17993	-31638	A	0.7966	0.9606	29.2N	78.3E	37 234 04m19s
03491	-12	-0540	Jan 25	19:12:59	17721	-31415	A	0.7801	0.9606	28.6N	46.1W	39 225 04m15s
03536	-11	-0522	Feb 05	03:06:44	17451	-31192	A	0.7570	0.9609	28.2N	167.8W	41 212 04m08s

03581	-10	-0504	Feb 16	10:50:13	17183	-30969	A	0.7261	0.9616	28.0N	73.6E	43	197	03m59s
03626	-09	-0486	Feb 26	18:24:09	16874	-30746	A	0.6880	0.9624	28.0N	42.2W	46	182	03m48s
03670	-08	-0468	Mar 09	01:46:01	16561	-30523	A	0.6406	0.9633	28.1N	154.3W	50	169	03m39s
03714	-07	-0450	Mar 20	08:59:06	16257	-30300	A	0.5865	0.9641	28.6N	96.5E	54	157	03m31s
03758	-06	-0432	Mar 30	16:01:21	15961	-30077	A	0.5243	0.9646	29.0N	9.4W	58	147	03m27s
03801	-05	-0414	Apr 10	22:55:21	15673	-29854	A	0.4558	0.9650	29.5N	112.7W	63	140	03m25s
03843	-04	-0396	Apr 21	05:40:33	15393	-29631	A	0.3807	0.9649	29.7N	146.8E	67	136	03m29s
03885	-03	-0378	May 02	12:19:43	15119	-29408	A	0.3012	0.9645	29.5N	48.2E	72	134	03m37s
03926	-02	-0360	May 12	18:53:04	14852	-29185	A	0.2177	0.9636	28.6N	48.7W	77	135	03m52s
03965	-01	-0342	May 24	01:21:41	14592	-28962	Am	0.1308	0.9622	26.9N	144.4W	82	138	04m13s
04005	00	-0324	Jun 03	07:48:31	14337	-28739	A	0.0434	0.9603	24.3N	120.0E	87	144	04m41s
04046	01	-0306	Jun 14	14:14:06	14088	-28516	A	-0.0442	0.9579	20.8N	24.2E	88	153	05m14s
04087	02	-0288	Jun 24	20:41:21	13844	-28293	A	-0.1300	0.9551	16.4N	72.7W	83	165	05m53s
04127	03	-0270	Jul 06	03:09:49	13606	-28070	A	-0.2141	0.9519	11.2N	170.6W	78	180	06m34s
04167	04	-0252	Jul 16	09:43:49	13373	-27847	A	-0.2930	0.9483	5.4N	89.4E	73	199	07m13s
04208	05	-0234	Jul 27	16:21:57	13144	-27624	A	-0.3678	0.9445	0.9S	12.4W	68	220	07m46s
04249	06	-0216	Aug 06	23:07:26	12920	-27401	A	-0.4360	0.9404	7.6S	116.6W	64	244	08m12s
04290	07	-0198	Aug 18	05:59:42	12700	-27178	A	-0.4984	0.9363	14.4S	137.0E	60	272	08m28s
04332	08	-0180	Aug 28	13:02:00	12485	-26955	A	-0.5523	0.9323	21.3S	27.7E	56	301	08m37s
04375	09	-0162	Sep 08	20:12:38	12274	-26732	A	-0.5988	0.9284	28.2S	83.9W	53	332	08m39s
04418	10	-0144	Sep 19	03:32:37	12066	-26509	A	-0.6376	0.9247	34.8S	162.2E	50	364	08m36s
04461	11	-0126	Sep 30	11:01:41	11862	-26286	A	-0.6688	0.9214	41.3S	46.2E	48	395	08m30s
04504	12	-0108	Oct 10	18:39:51	11662	-26063	A	-0.6925	0.9186	47.3S	71.7W	46	424	08m21s
04547	13	-0090	Oct 22	02:25:08	11465	-25840	A	-0.7103	0.9164	53.1S	169.6E	44	450	08m11s
04591	14	-0072	Nov 01	10:17:08	11272	-25617	A	-0.7225	0.9147	58.4S	50.6E	43	470	08m01s
04636	15	-0054	Nov 12	18:13:57	11081	-25394	A	-0.7309	0.9137	63.2S	67.7W	43	483	07m49s
04681	16	-0036	Nov 23	02:15:09	10893	-25171	A	-0.7359	0.9134	67.2S	176.0E	42	490	07m38s
04728	17	-0018	Dec 04	10:16:40	10708	-24948	A	-0.7407	0.9139	70.2S	63.3E	42	492	07m25s

04774 18 0000 Dec 14 18:19:36 10525 -24725 A -0.7446 0.9150 71.8S 46.2W 42 488 07m12s
 04820 19 0018 Dec 26 02:19:23 10344 -24502 A -0.7515 0.9167 71.7S 153.7W 41 483 06m56s
 04866 20 0037 Jan 05 10:17:02 10165 -24279 A -0.7602 0.9191 70.1S 97.6E 40 474 06m40s
 04911 21 0055 Jan 16 18:07:44 9988 -24056 A -0.7752 0.9219 67.7S 12.1W 39 467 06m22s
 04955 22 0073 Jan 27 01:54:29 9812 -23833 A -0.7938 0.9252 64.7S 123.8W 37 461 06m02s
 04999 23 0091 Feb 07 09:32:43 9638 -23610 A -0.8201 0.9288 61.9S 125.2E 35 463 05m42s
 05044 24 0109 Feb 17 17:04:01 9465 -23387 A -0.8523 0.9325 59.5S 15.2E 31 475 05m21s
 05088 25 0127 Mar 01 00:25:56 9292 -23164 A -0.8926 0.9361 58.1S 92.1W 26 518 05m00s
 05132 26 0145 Mar 11 07:41:10 9121 -22941 A -0.9387 0.9395 57.9S 164.2E 20 643 04m38s
 05174 27 0163 Mar 22 14:48:14 8950 -22718 As -0.9922 0.9409 60.3S 75.0E 6 - 04m11s
 05215 28 0181 Apr 01 21:47:59 8779 -22495 P -1.0519 0.8780 60.8S 27.5W 0
 05256 29 0199 Apr 13 04:41:40 8608 -22272 P -1.1170 0.7667 61.1S 140.3W 0
 05297 30 0217 Apr 23 11:30:26 8437 -22049 P -1.1862 0.6472 61.5S 108.0E 0
 05338 31 0235 May 04 18:14:55 8265 -21826 P -1.2592 0.5197 62.0S 2.8W 0
 05379 32 0253 May 15 00:56:59 8093 -21603 P -1.3347 0.3868 62.7S 113.2W 0
 05420 33 0271 May 26 07:37:54 7921 -21380 P -1.4113 0.2507 63.5S 136.5E 0
 05460 34 0289 Jun 05 14:20:04 7748 -21157 Pe -1.4873 0.1149 64.3S 25.6E 0

SAROS SERIES

62

Saros series 62 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
												°	km
GREATEST													
ECLIPSE													

02648	-34	-0890	May 22	14:07:11	23370	-35740	Pb	-1.5229	0.0667	69.3S	92.7E	0	
02689	-33	-0872	Jun 01	20:25:59	23059	-35517	P	-1.4382	0.2122	68.3S	15.1W	0	
02730	-32	-0854	Jun 13	02:44:57	22751	-35294	P	-1.3532	0.3582	67.4S	122.5W	0	
02769	-31	-0836	Jun 23	09:06:11	22445	-35071	P	-1.2694	0.5015	66.3S	130.1E	0	
02810	-30	-0818	Jul 04	15:31:21	22141	-34848	P	-1.1883	0.6400	65.3S	22.2E	0	
02851	-29	-0800	Jul 14	22:02:17	21839	-34625	P	-1.1109	0.7713	64.4S	86.7W	0	
02892	-28	-0782	Jul 26	04:40:03	21539	-34402	P	-1.0388	0.8933	63.5S	162.9E	0	
02933	-27	-0764	Aug 05	11:25:43	21241	-34179	A	-0.9723	0.9282	52.4S	65.5E	13	1174 06m53s
02975	-26	-0746	Aug 16	18:21:08	20945	-33956	A	-0.9131	0.9285	43.9S	36.9W	24	644 07m18s
03017	-25	-0728	Aug 27	01:26:21	20652	-33733	A	-0.8612	0.9277	40.1S	144.2W	30	517 07m27s
03061	-24	-0710	Sep 07	08:41:03	20360	-33510	A	-0.8164	0.9266	38.6S	105.5E	35	462 07m29s
03105	-23	-0692	Sep 17	16:06:16	20070	-33287	A	-0.7796	0.9254	38.9S	7.6W	39	434 07m27s
03150	-22	-0674	Sep 28	23:41:07	19783	-33064	A	-0.7505	0.9243	40.4S	123.3W	41	419 07m22s
03195	-21	-0656	Oct 09	07:25:32	19497	-32841	A	-0.7282	0.9235	43.0S	118.7E	43	410 07m15s
03240	-20	-0638	Oct 20	15:16:38	19214	-32618	A	-0.7109	0.9230	46.3S	0.8W	44	405 07m08s
03286	-19	-0620	Oct 30	23:15:34	18933	-32395	A	-0.6996	0.9230	50.0S	121.8W	45	400 06m58s
03333	-18	-0602	Nov 11	07:19:13	18654	-32172	A	-0.6918	0.9235	54.1S	116.8E	46	395 06m47s
03380	-17	-0584	Nov 21	15:26:35	18376	-31949	A	-0.6866	0.9247	58.0S	4.2W	46	388 06m34s
03428	-16	-0566	Dec 02	23:35:05	18101	-31726	A	-0.6819	0.9265	61.5S	123.5W	47	377 06m20s
03474	-15	-0548	Dec 13	07:43:37	17828	-31503	A	-0.6766	0.9291	64.2S	119.6E	47	362 06m05s
03519	-14	-0530	Dec 24	15:50:22	17557	-31280	A	-0.6692	0.9323	65.4S	5.3E	48	342 05m49s

03564 -13 -0511 Jan 03 23:52:51 17289 -31057 A -0.6579 0.9362 64.9S 107.1W 49 317 05m31s

03609 -12 -0493 Jan 15 07:51:11 17000 -30834 A -0.6424 0.9407 62.5S 140.1E 50 288 05m12s

03653 -11 -0475 Jan 25 15:43:04 16683 -30611 A -0.6212 0.9459 58.5S 26.1E 51 255 04m52s

03697 -10 -0457 Feb 05 23:28:11 16376 -30388 A -0.5934 0.9515 53.3S 88.8W 53 221 04m29s

03740 -09 -0439 Feb 16 07:05:14 16077 -30165 A -0.5579 0.9575 47.1S 156.3E 56 186 04m04s

03784 -08 -0421 Feb 27 14:35:29 15786 -29942 A -0.5161 0.9637 40.3S 41.6E 59 152 03m36s

03826 -07 -0403 Mar 09 21:58:29 15503 -29719 A -0.4674 0.9702 33.0S 72.2W 62 121 03m04s

03868 -06 -0385 Mar 21 05:13:33 15227 -29496 A -0.4111 0.9766 25.3S 175.5E 66 91 02m29s

03910 -05 -0367 Mar 31 12:23:03 14957 -29273 A -0.3492 0.9830 17.4S 64.4E 69 64 01m52s

03949 -04 -0349 Apr 11 19:26:44 14694 -29050 A -0.2812 0.9891 9.3S 45.3W 74 40 01m13s

03989 -03 -0331 Apr 22 02:26:56 14437 -28827 A -0.2095 0.9949 1.3S 153.9W 78 18 00m35s

04030 -02 -0313 May 03 09:22:29 14186 -28604 H -0.1330 1.0002 6.6N 98.9E 82 1 00m02s

04071 -01 -0295 May 13 16:17:41 13940 -28381 H -0.0550 1.0051 14.2N 7.6W 87 18 00m34s

04111 00 -0277 May 24 23:12:00 13699 -28158 H 0.0249 1.0093 21.4N 113.1W 88 32 01m00s

04151 01 -0259 Jun 04 06:07:27 13464 -27935 Hm 0.1047 1.0130 28.1N 142.0E 84 45 01m21s

04192 02 -0241 Jun 15 13:05:26 13234 -27712 H2 0.1836 1.0160 34.0N 37.5E 79 56 01m34s

04233 03 -0223 Jun 25 20:07:48 13008 -27489 T 0.2598 1.0184 38.9N 66.8W 75 65 01m42s

04274 04 -0205 Jul 07 03:16:01 12786 -27266 T 0.3323 1.0200 42.7N 171.5W 70 73 01m46s

04315 05 -0187 Jul 17 10:29:18 12569 -27043 T 0.4014 1.0212 45.2N 83.4E 66 79 01m47s

04358 06 -0169 Jul 28 17:51:19 12357 -26820 T 0.4644 1.0217 46.3N 23.5W 62 83 01m45s

04402 07 -0151 Aug 08 01:20:46 12148 -26597 T 0.5222 1.0218 46.3N 132.5W 58 87 01m43s

04445 08 -0133 Aug 19 09:00:20 11942 -26374 T 0.5723 1.0215 45.3N 115.1E 55 89 01m40s

04488 09 -0115 Aug 29 16:47:48 11741 -26151 T 0.6167 1.0210 43.6N 0.3W 52 90 01m36s

04531 10 -0097 Sep 10 00:46:41 11543 -25928 T 0.6525 1.0204 41.3N 119.8W 49 90 01m34s

04574 11 -0079 Sep 20 08:53:49 11348 -25705 T 0.6823 1.0197 38.9N 117.8E 47 90 01m32s

04619 12 -0061 Oct 01 17:10:28 11156 -25482 T 0.7048 1.0192 36.3N 8.0W 45 91 01m31s

04664 13 -0043 Oct 12 01:34:43 10967 -25259 T 0.7217 1.0189 33.8N 136.4W 44 91 01m32s

04710 14 -0025 Oct 23 10:07:36 10780 -25036 T 0.7318 1.0189 31.2N 92.5E 43 93 01m35s

04756	15	-0007	Nov 02	18:45:46	10596	-24813	T	0.7385	1.0194	29.0N	40.1W	42	96	01m40s
04801	16	0011	Nov 14	03:29:00	10415	-24590	T	0.7415	1.0203	27.0N	174.2W	42	101	01m48s
04847	17	0029	Nov 24	12:15:21	10235	-24367	T	0.7424	1.0217	25.5N	50.8E	42	109	01m59s
04894	18	0047	Dec 05	21:04:34	10057	-24144	T	0.7414	1.0236	24.4N	84.8W	42	119	02m13s
04938	19	0065	Dec 16	05:52:32	9881	-23921	T	0.7420	1.0261	24.1N	139.9E	42	132	02m28s
04982	20	0083	Dec 27	14:39:57	9707	-23698	T	0.7435	1.0290	24.5N	4.7E	42	147	02m44s
05027	21	0102	Jan 06	23:23:12	9533	-23475	T	0.7490	1.0323	25.9N	129.5W	41	165	03m00s
05071	22	0120	Jan 18	08:03:34	9360	-23252	T	0.7574	1.0359	28.2N	96.9E	41	185	03m16s
05115	23	0138	Jan 28	16:36:21	9189	-23029	T	0.7723	1.0396	31.7N	35.2W	39	209	03m28s
05158	24	0156	Feb 09	01:04:40	9017	-22806	T	0.7914	1.0435	36.0N	166.6W	37	237	03m38s
05199	25	0174	Feb 19	09:23:59	8846	-22583	T	0.8182	1.0472	41.4N	63.4E	35	272	03m43s
05240	26	0192	Mar 01	17:37:08	8675	-22360	T	0.8505	1.0507	47.8N	66.2W	31	318	03m44s
05281	27	0210	Mar 13	01:40:48	8504	-22137	T	0.8909	1.0536	55.5N	164.2E	27	390	03m38s
05322	28	0228	Mar 23	09:38:46	8333	-21914	T	0.9363	1.0557	64.0N	30.3E	20	529	03m27s
05363	29	0246	Apr 03	17:28:38	8161	-21691	Tn	0.9885	1.0553	72.5N	129.1W	7	-	02m59s
05404	30	0264	Apr 14	01:12:18	7989	-21468	P	1.0461	0.9330	71.3N	76.4E	0		
05444	31	0282	Apr 25	08:50:06	7816	-21245	P	1.1087	0.8128	70.7N	52.1W	0		
05484	32	0300	May 05	16:23:42	7642	-21022	P	1.1751	0.6846	69.9N	178.9W	0		
05523	33	0318	May 16	23:53:36	7468	-20799	P	1.2444	0.5501	69.0N	55.7E	0		
05563	34	0336	May 27	07:20:31	7293	-20576	P	1.3160	0.4107	68.1N	68.3W	0		
05603	35	0354	Jun 07	14:46:56	7116	-20353	P	1.3882	0.2704	67.1N	168.3E	0		
05643	36	0372	Jun 17	22:13:25	6939	-20130	Pe	1.4603	0.1305	66.1N	45.3E	0		

SAROS SERIES

63

Saros series 63 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
02673	-36	-0879 Apr 20	19:29:54	23182	-35605	Pb	1.5192	0.0414	61.0N	121.4W	0		
02714	-35	-0861 May 02	02:38:41	22873	-35382	P	1.4433	0.1798	61.4N	121.3E	0		
02754	-34	-0843 May 12	09:44:12	22566	-35159	P	1.3638	0.3263	61.9N	4.7E	0		
02794	-33	-0825 May 23	16:51:36	22261	-34936	P	1.2846	0.4735	62.5N	112.6W	0		
02835	-32	-0807 Jun 02	23:58:25	21958	-34713	P	1.2038	0.6248	63.2N	130.2E	0		
02876	-31	-0789 Jun 14	07:10:12	21657	-34490	P	1.1259	0.7713	64.1N	11.4E	0		
02917	-30	-0771 Jun 24	14:24:39	21358	-34267	P	1.0495	0.9156	65.0N	108.3W	0		
02958	-29	-0753 Jul 05	21:44:52	21062	-34044	T	0.9769	1.0328	77.3N	138.0E	12	557	01m40s
03000	-28	-0735 Jul 16	05:10:58	20767	-33821	T	0.9082	1.0373	88.5N	145.4W	24	305	02m06s
03044	-27	-0717 Jul 27	12:45:12	20475	-33598	T	0.8458	1.0398	78.6N	96.3E	32	252	02m24s
03088	-26	-0699 Aug 06	20:27:21	20184	-33375	T	0.7890	1.0410	70.0N	21.4W	38	225	02m38s
03133	-25	-0681 Aug 18	04:17:49	19896	-33152	T	0.7387	1.0416	62.1N	141.6W	42	207	02m50s
03178	-24	-0663 Aug 28	12:17:52	19610	-32929	T	0.6960	1.0416	54.7N	95.4E	46	193	02m59s
03223	-23	-0645 Sep 08	20:26:44	19326	-32706	T	0.6603	1.0412	47.9N	30.0W	48	183	03m06s

03268	-22	-0627	Sep 19	04:44:18	19044	-32483	T	0.6314	1.0405	41.5N	157.7W	51	174	03m11s
03314	-21	-0609	Sep 30	13:10:06	18764	-32260	T	0.6092	1.0398	35.6N	72.5E	52	167	03m16s
03361	-20	-0591	Oct 10	21:43:55	18486	-32037	T	0.5934	1.0392	30.3N	59.2W	53	162	03m20s
03409	-19	-0573	Oct 22	06:24:20	18210	-31814	T	0.5830	1.0387	25.5N	167.6E	54	159	03m24s
03456	-18	-0555	Nov 01	15:09:28	17936	-31591	T	0.5764	1.0385	21.4N	33.3E	55	157	03m30s
03501	-17	-0537	Nov 12	23:59:29	17664	-31368	T	0.5735	1.0387	18.0N	102.1W	55	158	03m36s
03546	-16	-0519	Nov 23	08:51:54	17394	-31145	T	0.5724	1.0393	15.2N	122.0E	55	160	03m44s
03591	-15	-0501	Dec 04	17:44:58	17127	-30922	T	0.5717	1.0404	13.1N	14.0W	55	165	03m53s
03636	-14	-0483	Dec 15	02:36:40	16807	-30699	T	0.5698	1.0419	11.6N	149.8W	55	170	04m03s
03679	-13	-0465	Dec 26	11:26:22	16496	-30476	T	0.5660	1.0440	10.7N	75.1E	55	178	04m14s
03723	-12	-0446	Jan 05	20:12:29	16194	-30253	T	0.5588	1.0465	10.2N	59.1W	56	186	04m24s
03767	-11	-0428	Jan 17	04:52:35	15900	-30030	T	0.5466	1.0494	10.2N	168.4E	57	195	04m35s
03809	-10	-0410	Jan 27	13:26:55	15614	-29807	T	0.5294	1.0525	10.7N	37.4E	58	203	04m44s
03851	-09	-0392	Feb 07	21:53:26	15335	-29584	T	0.5057	1.0560	11.4N	91.3W	60	212	04m53s
03893	-08	-0374	Feb 18	06:12:52	15063	-29361	T	0.4761	1.0594	12.4N	142.0E	61	220	05m02s
03934	-07	-0356	Feb 29	14:23:05	14797	-29138	T	0.4386	1.0628	13.6N	17.9E	64	227	05m11s
03973	-06	-0338	Mar 11	22:26:24	14538	-28915	T	0.3954	1.0660	15.0N	104.2W	67	233	05m19s
04014	-05	-0320	Mar 22	06:21:05	14284	-28692	T	0.3452	1.0689	16.4N	136.3E	70	238	05m28s
04055	-04	-0302	Apr 02	14:08:34	14036	-28469	T	0.2890	1.0713	17.8N	19.0E	73	241	05m37s
04096	-03	-0284	Apr 12	21:48:54	13794	-28246	T	0.2270	1.0731	18.8N	96.2W	77	243	05m47s
04136	-02	-0266	Apr 24	05:23:32	13556	-28023	T	0.1606	1.0742	19.5N	150.4E	81	244	05m57s
04176	-01	-0248	May 04	12:53:34	13324	-27800	T	0.0902	1.0746	19.6N	38.4E	85	243	06m07s
04217	00	-0230	May 15	20:18:47	13096	-27577	Tm	0.0162	1.0742	18.8N	72.4W	89	241	06m16s
04257	01	-0212	May 26	03:42:22	12873	-27354	T	-0.0588	1.0729	17.3N	177.2E	87	237	06m23s
04298	02	-0194	Jun 06	11:04:05	12655	-27131	T	-0.1348	1.0707	14.9N	66.9E	82	232	06m26s
04340	03	-0176	Jun 16	18:26:21	12440	-26908	T	-0.2101	1.0678	11.5N	44.0W	78	226	06m23s
04384	04	-0158	Jun 28	01:49:01	12230	-26685	T	-0.2844	1.0639	7.3N	155.5W	74	218	06m13s
04427	05	-0140	Jul 08	09:14:45	12023	-26462	T	-0.3557	1.0594	2.3N	91.6E	69	209	05m53s

04470 06 -0122 Jul 19 16:43:53 11820 -26239 T -0.4232 1.0541 3.2S 22.9W 65 197 05m24s
 04513 07 -0104 Jul 30 00:16:56 11620 -26016 T -0.4867 1.0484 9.2S 138.9W 61 184 04m48s
 04556 08 -0086 Aug 10 07:56:02 11424 -25793 T -0.5444 1.0422 15.6S 103.1E 57 168 04m06s
 04601 09 -0068 Aug 20 15:41:05 11231 -25570 T -0.5964 1.0357 22.1S 16.9W 53 149 03m22s
 04646 10 -0050 Aug 31 23:33:54 11041 -25347 T -0.6410 1.0290 28.7S 139.2W 50 127 02m38s
 04691 11 -0032 Sep 11 07:32:25 10854 -25124 T -0.6801 1.0224 35.3S 97.0E 47 103 01m57s
 04738 12 -0014 Sep 22 15:39:28 10669 -24901 T -0.7112 1.0158 41.6S 29.0W 44 77 01m19s
 04783 13 0004 Oct 02 23:52:25 10486 -24678 H -0.7368 1.0095 47.8S 156.3W 42 48 00m46s
 04829 14 0022 Oct 14 08:12:53 10306 -24455 H -0.7556 1.0037 53.6S 75.1E 41 19 00m17s
 04875 15 0040 Oct 24 16:37:57 10127 -24232 A -0.7699 0.9982 59.2S 53.7W 39 10 00m08s
 04920 16 0058 Nov 05 01:09:07 9951 -24009 A -0.7787 0.9934 64.3S 177.8E 39 37 00m29s
 04964 17 0076 Nov 15 09:42:44 9775 -23786 A -0.7848 0.9891 68.9S 51.4E 38 62 00m46s
 05009 18 0094 Nov 26 18:18:40 9601 -23563 A -0.7886 0.9855 72.8S 71.4W 38 84 01m01s
 05054 19 0112 Dec 07 02:54:33 9428 -23340 A -0.7919 0.9825 75.5S 171.7E 37 103 01m13s
 05098 20 0130 Dec 18 11:29:55 9256 -23117 A -0.7953 0.9800 76.2S 59.4E 37 118 01m22s
 05142 21 0148 Dec 28 20:00:51 9085 -22894 A -0.8017 0.9780 75.1S 52.5W 36 132 01m30s
 05184 22 0167 Jan 09 04:27:22 8914 -22671 A -0.8110 0.9765 72.5S 168.1W 35 144 01m37s
 05224 23 0185 Jan 19 12:46:54 8743 -22448 A -0.8256 0.9752 69.3S 73.9E 34 157 01m42s
 05265 24 0203 Jan 30 20:59:58 8572 -22225 A -0.8449 0.9742 66.0S 45.4W 32 172 01m47s
 05306 25 0221 Feb 10 05:02:06 8400 -22002 A -0.8724 0.9731 63.2S 162.7W 29 196 01m52s
 05347 26 0239 Feb 21 12:56:11 8229 -21779 A -0.9056 0.9719 61.1S 81.9E 25 235 01m57s
 05388 27 0257 Mar 03 20:38:34 8057 -21556 A -0.9476 0.9702 60.2S 27.9W 18 335 02m03s
 05429 28 0275 Mar 15 04:12:26 7884 -21333 As -0.9957 0.9661 61.0S 120.4W 3 - 02m10s
 05469 29 0293 Mar 25 11:33:58 7711 -21110 P -1.0531 0.8842 60.7S 126.8E 0
 05508 30 0311 Apr 05 18:47:59 7537 -20887 P -1.1156 0.7737 60.9S 8.9E 0
 05547 31 0329 Apr 16 01:51:19 7362 -20664 P -1.1855 0.6500 61.2S 106.4W 0
 05587 32 0347 Apr 27 08:47:40 7186 -20441 P -1.2601 0.5183 61.6S 139.9E 0
 05627 33 0365 May 07 15:35:42 7009 -20218 P -1.3402 0.3772 62.2S 28.2E 0

05668 34 0383 May 18 22:19:09 6832 -19995 P -1.4227 0.2323 63.0S 82.6W 0

05709 35 0401 May 29 04:57:52 6654 -19772 Pe -1.5078 0.0836 63.8S 167.6E 0

SAROS SERIES

64

Saros series 64 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
02778	-36	-0832 Apr 11	18:10:34	22381	-35024	Pb	-1.5028	0.0557	71.4S	75.5E	0		
02819	-35	-0814 Apr 23	01:38:07	22077	-34801	P	-1.4421	0.1718	71.0S	51.3W	0		
02860	-34	-0796 May 03	08:58:49	21776	-34578	P	-1.3762	0.2978	70.5S	175.9W	0		
02901	-33	-0778 May 14	16:17:05	21476	-34355	P	-1.3088	0.4264	69.7S	60.5E	0		
02942	-32	-0760 May 24	23:31:16	21179	-34132	P	-1.2383	0.5604	68.9S	61.5W	0		
02984	-31	-0742 Jun 05	06:45:52	20883	-33909	P	-1.1686	0.6919	68.0S	177.0E	0		
03027	-30	-0724 Jun 15	13:57:48	20590	-33686	P	-1.0974	0.8255	67.0S	56.6E	0		
03071	-29	-0706 Jun 26	21:13:03	20299	-33463	P	-1.0292	0.9519	66.0S	64.1W	0		

03115 -28 -0688 Jul 07 04:29:06 20010 -33240 T -0.9621 1.0234 50.3S 177.1W 15 299 01m53s
03160 -27 -0670 Jul 18 11:49:55 19723 -33017 T -0.8996 1.0208 40.2S 69.6E 26 162 01m50s
03205 -26 -0652 Jul 28 19:14:08 19438 -32794 T -0.8405 1.0166 34.1S 44.4W 33 104 01m31s
03250 -25 -0634 Aug 09 02:45:29 19155 -32571 T -0.7880 1.0117 30.5S 159.8W 38 64 01m05s
03296 -24 -0616 Aug 19 10:22:40 18874 -32348 H -0.7411 1.0062 28.6S 83.6E 42 31 00m34s
03343 -23 -0598 Aug 30 18:06:26 18595 -32125 H -0.7003 1.0005 28.2S 34.5W 45 2 00m02s
03390 -22 -0580 Sep 10 01:57:23 18318 -31902 A -0.6663 0.9945 29.0S 154.4W 48 25 00m30s
03437 -21 -0562 Sep 21 09:55:50 18044 -31679 A -0.6395 0.9887 31.0S 83.9E 50 51 01m00s
03483 -20 -0544 Oct 01 18:01:19 17771 -31456 A -0.6190 0.9830 33.8S 39.4W 52 75 01m29s
03528 -19 -0526 Oct 13 02:12:29 17501 -31233 A -0.6041 0.9777 37.3S 164.0W 53 98 01m56s
03573 -18 -0508 Oct 23 10:29:43 17232 -31010 A -0.5949 0.9727 41.2S 70.1E 53 120 02m20s
03618 -17 -0490 Nov 03 18:51:11 16932 -30787 A -0.5900 0.9682 45.4S 56.3W 54 140 02m42s
03663 -16 -0472 Nov 14 03:15:19 16618 -30564 A -0.5880 0.9643 49.5S 177.4E 54 158 03m01s
03707 -15 -0454 Nov 25 11:40:41 16312 -30341 A -0.5878 0.9611 53.4S 52.1E 54 174 03m18s
03750 -14 -0436 Dec 05 20:05:47 16015 -30118 A -0.5881 0.9584 56.6S 71.5W 54 187 03m32s
03793 -13 -0418 Dec 17 04:28:25 15726 -29895 A -0.5871 0.9564 58.8S 167.3E 54 197 03m43s
03835 -12 -0400 Dec 27 12:46:23 15444 -29672 A -0.5829 0.9549 59.4S 48.5E 54 203 03m54s
03877 -11 -0381 Jan 07 20:59:04 15169 -29449 A -0.5753 0.9541 58.5S 69.0W 55 205 04m03s
03918 -10 -0363 Jan 18 05:04:49 14901 -29226 A -0.5631 0.9538 55.9S 174.0E 55 205 04m11s
03957 -09 -0345 Jan 29 13:01:02 14639 -29003 A -0.5436 0.9540 51.9S 57.5E 57 201 04m18s
03997 -08 -0327 Feb 08 20:48:05 14383 -28780 A -0.5174 0.9544 46.8S 58.6W 59 195 04m27s
04038 -07 -0309 Feb 20 04:24:40 14133 -28557 A -0.4834 0.9551 40.7S 173.7W 61 186 04m34s
04080 -06 -0291 Mar 02 11:51:44 13889 -28334 A -0.4425 0.9559 34.0S 72.5E 64 178 04m42s
04120 -05 -0273 Mar 13 19:06:33 13649 -28111 A -0.3923 0.9569 26.7S 39.1W 67 170 04m50s
04160 -04 -0255 Mar 24 02:12:47 13415 -27888 A -0.3357 0.9576 19.1S 149.0W 70 163 04m58s
04201 -03 -0237 Apr 04 09:08:11 13186 -27665 A -0.2706 0.9582 11.2S 103.7E 74 157 05m05s
04242 -02 -0219 Apr 14 15:55:53 12961 -27442 A -0.1999 0.9585 3.1S 1.7W 78 154 05m11s
04283 -01 -0201 Apr 25 22:34:26 12740 -27219 Am -0.1221 0.9586 5.1N 104.6W 83 152 05m16s

04324	00	-0183	May 06	05:08:22	12524	-26996	A	-0.0411	0.9581	13.1N	154.1E	88	152	05m20s
04367	01	-0165	May 17	11:36:29	12312	-26773	A	0.0443	0.9573	21.0N	54.9E	87	156	05m21s
04410	02	-0147	May 27	18:01:25	12104	-26550	A	0.1319	0.9560	28.5N	42.7W	82	162	05m21s
04453	03	-0129	Jun 08	00:24:36	11900	-26327	A	0.2205	0.9542	35.5N	138.7W	77	172	05m19s
04496	04	-0111	Jun 18	06:48:07	11699	-26104	A	0.3085	0.9519	41.7N	126.6E	72	185	05m17s
04539	05	-0093	Jun 29	13:13:16	11501	-25881	A	0.3945	0.9493	46.9N	33.2E	67	203	05m17s
04584	06	-0075	Jul 09	19:40:40	11307	-25658	A	0.4782	0.9461	51.0N	59.2W	61	226	05m18s
04629	07	-0057	Jul 21	02:13:29	11116	-25435	A	0.5572	0.9427	53.7N	151.6W	56	254	05m23s
04674	08	-0039	Jul 31	08:52:03	10927	-25212	A	0.6312	0.9390	55.1N	115.1E	51	290	05m31s
04720	09	-0021	Aug 11	15:37:32	10741	-24989	A	0.6990	0.9351	55.3N	19.8E	45	334	05m42s
04766	10	-0003	Aug 21	22:31:23	10558	-24766	A	0.7597	0.9311	54.7N	78.7W	40	390	05m57s
04811	11	0015	Sep 02	05:34:31	10377	-24543	A	0.8127	0.9272	53.8N	179.0E	35	460	06m15s
04857	12	0033	Sep 12	12:47:30	10198	-24320	A	0.8576	0.9233	52.8N	72.9E	31	549	06m36s
04902	13	0051	Sep 23	20:08:25	10020	-24097	A	0.8962	0.9197	52.2N	36.3W	26	667	06m58s
04946	14	0069	Oct 04	03:39:59	9844	-23874	A	0.9260	0.9164	51.9N	149.6W	22	820	07m21s
04990	15	0087	Oct 15	11:19:28	9670	-23651	A	0.9493	0.9136	52.2N	94.1E	18	1029	07m44s
05035	16	0105	Oct 25	19:07:56	9497	-23428	A	0.9657	0.9114	53.0N	25.8W	14	1299	08m04s
05080	17	0123	Nov 06	03:01:20	9324	-23205	An	0.9783	0.9098	54.4N	147.6W	11	-	08m20s
05124	18	0141	Nov 16	11:01:39	9152	-22982	An	0.9854	0.9089	55.9N	87.2E	9	-	08m31s
05167	19	0159	Nov 27	19:04:23	8981	-22759	An	0.9908	0.9087	58.0N	39.4W	7	-	08m34s
05208	20	0177	Dec 08	03:09:25	8810	-22536	An	0.9944	0.9093	60.5N	167.5W	4	-	08m28s
05249	21	0195	Dec 19	11:13:25	8639	-22313	A+	0.9991	0.9519	65.4N	64.8E	0		
05290	22	0213	Dec 29	19:16:25	8468	-22090	A+	1.0047	0.9436	66.5N	67.0W	0		
05331	23	0232	Jan 10	03:14:59	8297	-21867	A+	1.0141	0.9292	67.6N	161.8E	0		
05372	24	0250	Jan 20	11:08:46	8125	-21644	P	1.0277	0.9080	68.7N	31.2E	0		
05413	25	0268	Jan 31	18:56:05	7953	-21421	P	1.0468	0.8775	69.7N	98.5W	0		
05453	26	0286	Feb 11	02:37:17	7780	-21198	P	1.0709	0.8382	70.5N	132.8E	0		
05493	27	0304	Feb 22	10:09:17	7606	-20975	P	1.1031	0.7851	71.2N	5.8E	0		

05532	28	0322 Mar 04	17:34:33	7431 -20752	P	1.1412	0.7212	71.7N	120.0W	0
05572	29	0340 Mar 15	00:51:25	7255 -20529	P	1.1866	0.6442	71.9N	116.0E	0
05612	30	0358 Mar 26	08:02:37	7079 -20306	P	1.2370	0.5574	71.9N	6.6W	0
05652	31	0376 Apr 05	15:05:04	6902 -20083	P	1.2949	0.4567	71.6N	126.9W	0
05693	32	0394 Apr 16	22:03:59	6724 -19860	P	1.3563	0.3488	71.1N	114.1E	0
05734	33	0412 Apr 27	04:56:34	6546 -19637	P	1.4234	0.2296	70.4N	2.9W	0
05775	34	0430 May 08	11:47:21	6368 -19414	Pe	1.4922	0.1063	69.6N	118.8W	0

SAROS SERIES

65

Saros series 65 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

02967	-33	-0749 Apr 24	11:17:29	21000 -33997	Pb	1.5140	0.0838	61.1N	10.7W	0
03009	-32	-0731 May 04	17:41:04	20706 -33774	P	1.4323	0.2232	61.5N	116.7W	0
03053	-31	-0713 May 16	00:00:37	20413 -33551	P	1.3470	0.3691	62.1N	138.3E	0

03097 -30 -0695 May 26 06:18:53 20124 -33328 P 1.2598 0.5182 62.7N 33.4E 0

03142 -29 -0677 Jun 06 12:36:38 19836 -33105 P 1.1719 0.6687 63.5N 71.6W 0

03187 -28 -0659 Jun 16 18:56:53 19550 -32882 P 1.0852 0.8166 64.4N 177.4W 0

03232 -27 -0641 Jun 28 01:18:35 19266 -32659 A+ 0.9992 0.9632 65.3N 76.1E 0

03278 -26 -0623 Jul 08 07:46:48 18984 -32436 A 0.9182 0.9375 87.9N 35.2E 23 599 04m17s

03324 -25 -0605 Jul 19 14:19:55 18705 -32213 A 0.8407 0.9383 79.9N 53.6E 32 428 04m40s

03371 -24 -0587 Jul 29 21:02:02 18427 -31990 A 0.7699 0.9382 70.6N 43.5W 39 362 05m06s

03419 -23 -0569 Aug 10 03:51:16 18152 -31767 A 0.7045 0.9375 62.0N 146.5W 45 328 05m34s

03465 -22 -0551 Aug 20 10:51:35 17878 -31544 A 0.6477 0.9365 54.0N 106.5E 49 310 06m03s

03510 -21 -0533 Aug 31 18:00:44 17607 -31321 A 0.5977 0.9353 46.5N 3.4W 53 299 06m34s

03555 -20 -0515 Sep 11 01:20:22 17338 -31098 A 0.5559 0.9343 39.4N 116.1W 56 293 07m03s

03600 -19 -0497 Sep 22 08:50:00 17059 -30875 A 0.5216 0.9332 32.9N 128.4E 58 290 07m32s

03645 -18 -0479 Oct 02 16:30:01 16741 -30652 A 0.4951 0.9324 26.8N 10.2E 60 289 07m57s

03689 -17 -0461 Oct 14 00:19:05 16432 -30429 A 0.4756 0.9318 21.3N 110.1W 61 288 08m20s

03733 -16 -0443 Oct 24 08:15:20 16131 -30206 A 0.4612 0.9318 16.4N 128.0E 62 286 08m38s

03777 -15 -0425 Nov 04 16:19:10 15839 -29983 A 0.4525 0.9322 12.2N 4.4E 63 283 08m51s

03819 -14 -0407 Nov 15 00:27:37 15554 -29760 A 0.4466 0.9332 8.7N 120.2W 63 278 08m55s

03861 -13 -0389 Nov 26 08:39:30 15277 -29537 A 0.4429 0.9349 5.9N 114.6E 64 270 08m51s

03903 -12 -0371 Dec 06 16:52:06 15006 -29314 A 0.4391 0.9372 3.7N 10.6W 64 260 08m35s

03942 -11 -0353 Dec 18 01:04:52 14742 -29091 A 0.4347 0.9402 2.3N 135.7W 64 246 08m07s

03981 -10 -0335 Dec 28 09:15:22 14484 -28868 A 0.4276 0.9438 1.5N 99.9E 65 229 07m28s

04022 -09 -0316 Jan 08 17:21:51 14231 -28645 A 0.4165 0.9481 1.2N 23.4W 65 209 06m41s

04063 -08 -0298 Jan 19 01:23:21 13985 -28422 A 0.4003 0.9531 1.4N 145.3W 66 186 05m48s

04104 -07 -0280 Jan 30 09:18:46 13743 -28199 A 0.3783 0.9584 2.0N 94.4E 68 162 04m55s

04144 -06 -0262 Feb 09 17:06:51 13507 -27976 A 0.3495 0.9643 3.0N 23.9W 70 137 04m02s

04185 -05 -0244 Feb 21 00:47:37 13276 -27753 A 0.3135 0.9704 4.2N 140.2W 72 111 03m12s

04226 -04 -0226 Mar 03 08:21:06 13049 -27530 A 0.2706 0.9769 5.6N 105.5E 74 85 02m24s

04267 -03 -0208 Mar 13 15:48:10 12827 -27307 A 0.2211 0.9832 7.0N 6.9W 77 61 01m41s

04308 -02 -0190 Mar 24 23:07:08 12609 -27084 A 0.1639 0.9897 8.3N 117.0W 81 37 01m01s
 04350 -01 -0172 Apr 04 06:21:06 12395 -26861 A 0.1016 0.9959 9.5N 134.4E 84 14 00m24s
 04394 00 -0154 Apr 15 13:29:12 12186 -26638 H 0.0334 1.0019 10.2N 27.4E 88 7 00m11s
 04436 01 -0136 Apr 25 20:34:51 11980 -26415 H -0.0381 1.0074 10.3N 78.8W 88 26 00m44s
 04479 02 -0118 May 07 03:35:48 11778 -26192 Hm -0.1145 1.0125 9.7N 176.2E 83 43 01m15s
 04522 03 -0100 May 17 10:37:31 11579 -25969 H2 -0.1912 1.0170 8.4N 70.9E 79 59 01m44s
 04565 04 -0082 May 28 17:37:45 11383 -25746 T -0.2698 1.0209 6.0N 34.3W 74 74 02m11s
 04610 05 -0064 Jun 08 00:40:35 11191 -25523 T -0.3471 1.0241 2.8N 140.7W 70 87 02m34s
 04655 06 -0046 Jun 19 07:44:32 11001 -25300 T -0.4244 1.0265 1.3S 112.2E 65 99 02m52s
 04701 07 -0028 Jun 29 14:53:57 10814 -25077 T -0.4978 1.0283 6.2S 3.0E 60 110 03m03s
 04748 08 -0010 Jul 10 22:07:51 10630 -24854 T -0.5681 1.0294 11.8S 108.0W 55 121 03m06s
 04793 09 0008 Jul 21 05:28:07 10448 -24631 T -0.6339 1.0298 18.0S 138.8E 51 130 03m02s
 04839 10 0026 Aug 01 12:55:45 10268 -24408 T -0.6941 1.0296 24.7S 22.9E 46 139 02m53s
 04885 11 0044 Aug 11 20:31:57 10090 -24185 T -0.7477 1.0290 31.5S 95.8W 41 147 02m39s
 04929 12 0062 Aug 23 04:17:02 9914 -23962 T -0.7950 1.0280 38.5S 142.5E 37 155 02m24s
 04973 13 0080 Sep 02 12:11:02 9739 -23739 T -0.8355 1.0267 45.5S 17.7E 33 164 02m08s
 05018 14 0098 Sep 13 20:14:32 9565 -23516 T -0.8688 1.0253 52.3S 110.3W 29 173 01m53s
 05062 15 0116 Sep 24 04:27:28 9392 -23293 T -0.8950 1.0239 58.6S 118.2E 26 182 01m39s
 05106 16 0134 Oct 05 12:48:19 9220 -23070 T -0.9153 1.0226 64.5S 16.5W 23 193 01m29s
 05150 17 0152 Oct 15 21:18:07 9049 -22847 T -0.9291 1.0217 69.7S 154.7W 21 203 01m20s
 05192 18 0170 Oct 27 05:54:29 8878 -22624 T -0.9382 1.0212 74.4S 63.7E 20 213 01m15s
 05233 19 0188 Nov 06 14:37:31 8707 -22401 T -0.9423 1.0212 78.4S 80.9W 19 222 01m13s
 05274 20 0206 Nov 17 23:23:19 8536 -22178 T -0.9446 1.0218 82.0S 128.4E 19 233 01m12s
 05315 21 0224 Nov 28 08:13:29 8364 -21955 T -0.9439 1.0230 85.1S 35.1W 19 244 01m15s
 05356 22 0242 Dec 09 17:03:55 8193 -21732 T -0.9438 1.0246 85.7S 134.1E 19 261 01m19s
 05397 23 0260 Dec 20 01:54:30 8021 -21509 T -0.9438 1.0267 83.2S 39.8W 19 283 01m25s
 05437 24 0278 Dec 31 10:41:52 7848 -21286 T -0.9471 1.0290 79.4S 170.8E 18 316 01m32s
 05477 25 0297 Jan 10 19:26:43 7674 -21063 T -0.9528 1.0318 75.5S 30.2E 17 364 01m40s

05516	26	0315 Jan 22	04:06:13	7500 -20840	T	-0.9636	1.0344	71.5S	104.1W	15	449	01m48s
05556	27	0333 Feb 01	12:39:53	7325 -20617	T	-0.9795	1.0368	67.6S	127.7E	11	655	01m54s
05596	28	0351 Feb 12	21:06:45	7149 -20394	T-	-1.0018	1.0102	61.7S	13.6E	0		
05636	29	0369 Feb 23	05:26:33	6972 -20171	P	-1.0301	0.9583	61.2S	120.9W	0		
05677	30	0387 Mar 06	13:38:22	6795 -19948	P	-1.0654	0.8923	61.0S	106.7E	0		
05718	31	0405 Mar 16	21:42:37	6617 -19725	P	-1.1073	0.8133	60.9S	23.8W	0		
05759	32	0423 Mar 28	05:39:26	6438 -19502	P	-1.1556	0.7213	60.9S	152.5W	0		
05800	33	0441 Apr 07	13:29:51	6260 -19279	P	-1.2093	0.6182	61.1S	80.4E	0		
05841	34	0459 Apr 18	21:12:31	6082 -19056	P	-1.2694	0.5020	61.5S	44.8W	0		
05884	35	0477 Apr 29	04:50:23	5904 -18833	P	-1.3332	0.3782	62.0S	169.0W	0		
05927	36	0495 May 10	12:22:50	5728 -18610	P	-1.4013	0.2458	62.6S	68.0E	0		
05971	37	0513 May 20	19:52:49	5551 -18387	Pe	-1.4713	0.1095	63.3S	54.5W	0		

SAROS SERIES

66

Saros series 66 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

02951 -37 -0756 Mar 12 08:51:34 21116 -34085 Pb -1.5417 0.0047 71.4S 112.2W 0

02993 -36 -0738 Mar 23 16:19:52 20821 -33862 P -1.4834 0.1085 71.7S 120.6E 0

03037 -35 -0720 Apr 02 23:44:08 20528 -33639 P -1.4209 0.2216 71.7S 5.7W 0

03081 -34 -0702 Apr 14 07:02:58 20238 -33416 P -1.3528 0.3465 71.5S 130.6W 0

03125 -33 -0684 Apr 24 14:18:14 19949 -33193 P -1.2806 0.4804 71.0S 105.8E 0

03170 -32 -0666 May 05 21:31:04 19662 -32970 P -1.2052 0.6216 70.4S 16.8W 0

03215 -31 -0648 May 16 04:43:15 19378 -32747 P -1.1279 0.7675 69.6S 138.6W 0

03260 -30 -0630 May 27 11:55:19 19095 -32524 P -1.0497 0.9162 68.7S 100.2E 0

03306 -29 -0612 Jun 06 19:08:18 18815 -32301 T -0.9713 1.0379 54.8S 24.4W 13 558 02m52s

03353 -28 -0594 Jun 18 02:24:37 18537 -32078 T -0.8947 1.0440 40.6S 141.2W 26 331 03m44s

03400 -27 -0576 Jun 28 09:45:01 18260 -31855 T -0.8206 1.0478 31.4S 103.9E 35 279 04m18s

03447 -26 -0558 Jul 09 17:09:51 17986 -31632 T -0.7494 1.0504 24.7S 10.9W 41 252 04m39s

03492 -25 -0540 Jul 20 00:41:28 17714 -31409 T -0.6831 1.0520 19.8S 126.5W 47 234 04m48s

03537 -24 -0522 Jul 31 08:20:05 17444 -31186 T -0.6223 1.0527 16.5S 116.6E 51 221 04m49s

03582 -23 -0504 Aug 10 16:07:21 17176 -30963 T -0.5679 1.0528 14.8S 2.1W 55 210 04m43s

03627 -22 -0486 Aug 22 00:01:27 16865 -30740 T -0.5188 1.0522 14.2S 122.5W 59 200 04m33s

03671 -21 -0468 Sep 01 08:05:35 16553 -30517 T -0.4775 1.0513 14.9S 114.7E 61 191 04m21s

03715 -20 -0450 Sep 12 16:17:47 16249 -30294 T -0.4426 1.0501 16.6S 10.0W 64 184 04m09s

03759 -19 -0432 Sep 23 00:39:06 15953 -30071 T -0.4149 1.0489 19.2S 137.0W 65 177 03m57s

03802 -18 -0414 Oct 04 09:07:54 15666 -29848 T -0.3933 1.0475 22.4S 94.3E 67 170 03m47s

03844 -17 -0396 Oct 14 17:44:49 15385 -29625 T -0.3782 1.0463 26.1S 36.3W 68 165 03m39s

03886 -16 -0378 Oct 26 02:27:56 15112 -29402 T -0.3681 1.0453 30.0S 168.1W 68 161 03m32s

03927 -15 -0360 Nov 05 11:15:17 14845 -29179 T -0.3614 1.0446 33.9S 59.5E 69 159 03m28s

03966 -14 -0342 Nov 16 20:07:00 14585 -28956 T -0.3583 1.0443 37.5S 73.3W 69 158 03m26s

04006 -13 -0324 Nov 27 05:00:21 14330 -28733 T -0.3570 1.0445 40.7S 154.4E 69 159 03m28s

04047 -12 -0306 Dec 08 13:54:19 14081 -28510 T -0.3559 1.0452 43.0S 22.7E 69 161 03m31s
04088 -11 -0288 Dec 18 22:45:47 13838 -28287 T -0.3529 1.0463 44.2S 107.6W 69 165 03m38s
04128 -10 -0270 Dec 30 07:35:31 13600 -28064 T -0.3486 1.0479 44.2S 122.7E 69 170 03m47s
04168 -09 -0251 Jan 09 16:20:26 13366 -27841 T -0.3405 1.0499 42.9S 5.9W 70 176 03m59s
04209 -08 -0233 Jan 21 00:59:37 13138 -27618 T -0.3277 1.0522 40.2S 133.9W 71 183 04m13s
04250 -07 -0215 Jan 31 09:31:56 12914 -27395 T -0.3093 1.0548 36.3S 98.9E 72 190 04m30s
04291 -06 -0197 Feb 11 17:57:05 12694 -27172 T -0.2849 1.0574 31.5S 27.6W 73 197 04m48s
04333 -05 -0179 Feb 22 02:14:20 12479 -26949 T -0.2540 1.0602 25.8S 153.1W 75 204 05m08s
04376 -04 -0161 Mar 05 10:23:04 12268 -26726 T -0.2163 1.0627 19.6S 82.8E 77 210 05m27s
04419 -03 -0143 Mar 15 18:24:02 12061 -26503 T -0.1720 1.0650 12.8S 39.9W 80 216 05m45s
04462 -02 -0125 Mar 27 02:17:01 11857 -26280 T -0.1213 1.0669 5.7S 161.0W 83 220 05m59s
04505 -01 -0107 Apr 06 10:01:59 11657 -26057 Tm -0.0640 1.0684 1.7N 79.8E 86 223 06m10s
04548 00 -0089 Apr 17 17:40:32 11460 -25834 T -0.0015 1.0692 9.3N 37.7W 90 225 06m15s
04592 01 -0071 Apr 28 01:12:51 11266 -25611 T 0.0658 1.0694 16.8N 153.3W 86 226 06m13s
04637 02 -0053 May 09 08:41:04 11076 -25388 T 0.1361 1.0686 24.2N 92.5E 82 226 06m03s
04682 03 -0035 May 19 16:03:49 10888 -25165 T 0.2106 1.0672 31.4N 19.5W 78 225 05m46s
04729 04 -0017 May 30 23:25:29 10703 -24942 T 0.2855 1.0649 38.2N 130.2W 73 222 05m23s
04775 05 0001 Jun 10 06:44:16 10520 -24719 T 0.3625 1.0617 44.4N 121.2E 69 218 04m56s
04821 06 0019 Jun 21 14:04:18 10339 -24496 T 0.4376 1.0577 49.7N 13.9E 64 212 04m26s
04867 07 0037 Jul 01 21:23:24 10160 -24273 T 0.5128 1.0529 54.1N 91.2W 59 204 03m54s
04912 08 0055 Jul 13 04:47:03 9983 -24050 T 0.5837 1.0475 57.0N 164.2E 54 195 03m23s
04956 09 0073 Jul 23 12:12:48 9808 -23827 T 0.6522 1.0413 58.6N 60.1E 49 182 02m52s
05000 10 0091 Aug 03 19:44:06 9633 -23604 T 0.7154 1.0347 58.9N 45.5W 44 167 02m21s
05045 11 0109 Aug 14 03:20:13 9460 -23381 T 0.7739 1.0276 58.4N 153.2W 39 147 01m51s
05089 12 0127 Aug 25 11:03:53 9288 -23158 T 0.8252 1.0203 57.2N 95.5E 34 121 01m22s
05133 13 0145 Sep 04 18:53:49 9116 -22935 T 0.8709 1.0128 56.1N 18.7W 29 88 00m52s
05175 14 0163 Sep 16 02:50:40 8945 -22712 H 0.9101 1.0053 55.3N 135.8W 24 43 00m21s
05216 15 0181 Sep 26 10:54:43 8774 -22489 A 0.9426 0.9978 55.1N 104.4E 19 23 00m09s

05257	16	0199	Oct 07	19:06:10	8603 -22266	A	0.9683	0.9905	55.8N	17.8W	14	134	00m40s
05298	17	0217	Oct 18	03:23:22	8432 -22043	A	0.9884	0.9833	57.9N	140.4W	8	425	01m10s
05340	18	0235	Oct 29	11:46:24	8261 -21820	A+	1.0029	0.9781	61.6N	98.0E	0		
05381	19	0253	Nov 08	20:13:33	8089 -21597	P	1.0136	0.9570	62.2N	38.4W	0		
05422	20	0271	Nov 20	04:44:21	7916 -21374	P	1.0204	0.9430	62.9N	175.9W	0		
05462	21	0289	Nov 30	13:15:06	7743 -21151	P	1.0264	0.9307	63.8N	46.3E	0		
05501	22	0307	Dec 11	21:47:09	7569 -20928	P	1.0308	0.9217	64.8N	92.1W	0		
05540	23	0325	Dec 22	06:16:14	7394 -20705	P	1.0365	0.9106	65.9N	129.9E	0		
05580	24	0344	Jan 02	14:42:39	7218 -20482	P	1.0440	0.8967	67.0N	8.0W	0		
05620	25	0362	Jan 12	23:02:10	7042 -20259	P	1.0565	0.8743	68.0N	144.7W	0		
05661	26	0380	Jan 24	07:16:41	6865 -20036	P	1.0722	0.8464	69.1N	79.3E	0		
05702	27	0398	Feb 03	15:22:22	6687 -19813	P	1.0942	0.8077	70.0N	55.2W	0		
05743	28	0416	Feb 14	23:19:01	6509 -19590	P	1.1229	0.7575	70.8N	171.9E	0		
05784	29	0434	Feb 25	07:05:34	6330 -19367	P	1.1588	0.6947	71.5N	41.0E	0		
05824	30	0452	Mar 07	14:42:20	6152 -19144	P	1.2019	0.6192	71.8N	87.9W	0		
05866	31	0470	Mar 18	22:08:44	5974 -18921	P	1.2523	0.5311	72.0N	145.7E	0		
05909	32	0488	Mar 29	05:24:28	5797 -18698	P	1.3102	0.4298	71.9N	21.9E	0		
05953	33	0506	Apr 09	12:30:50	5621 -18475	P	1.3745	0.3174	71.5N	99.3W	0		
05997	34	0524	Apr 19	19:28:06	5444 -18252	P	1.4451	0.1940	70.9N	142.2E	0		
06042	35	0542	May 01	02:16:58	5268 -18029	Pe	1.5211	0.0615	70.2N	26.4E	0		

SAROS SERIES

Saros series 67 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

03063	-37	-0709	Mar 04	06:56:06	20352	-33504	Pb	1.5025	0.0612	61.3N	92.7E	0	
03107	-36	-0691	Mar 14	14:48:01	20063	-33281	P	1.4595	0.1422	61.0N	35.3W	0	
03152	-35	-0673	Mar 25	22:33:12	19775	-33058	P	1.4116	0.2327	60.8N	161.6W	0	
03197	-34	-0655	Apr 05	06:08:28	19490	-32835	P	1.3562	0.3377	60.9N	74.6E	0	
03242	-33	-0637	Apr 16	13:38:29	19206	-32612	P	1.2970	0.4499	61.0N	47.8W	0	
03288	-32	-0619	Apr 26	21:00:49	18925	-32389	P	1.2323	0.5722	61.4N	168.4W	0	
03335	-31	-0601	May 08	04:18:42	18646	-32166	P	1.1645	0.7000	61.8N	72.0E	0	
03382	-30	-0583	May 18	11:31:36	18369	-31943	P	1.0933	0.8334	62.4N	46.5W	0	
03429	-29	-0565	May 29	18:42:22	18094	-31720	P	1.0212	0.9676	63.1N	164.5W	0	
03475	-28	-0547	Jun 09	01:51:23	17821	-31497	T	0.9482	1.0266	76.4N	118.5E	18	292 01m28s
03520	-27	-0529	Jun 20	08:59:47	17550	-31274	T	0.8754	1.0253	80.1N	59.7E	29	180 01m30s
03565	-26	-0511	Jun 30	16:09:58	17281	-31051	T	0.8051	1.0223	77.0N	9.2W	36	129 01m26s
03610	-25	-0493	Jul 11	23:22:27	16991	-30828	T	0.7375	1.0183	71.0N	100.9W	42	93 01m16s
03654	-24	-0475	Jul 22	06:39:02	16675	-30605	T	0.6740	1.0136	64.3N	156.2E	47	64 01m00s
03698	-23	-0457	Aug 02	14:00:01	16368	-30382	H	0.6149	1.0083	57.4N	47.8E	52	37 00m39s
03741	-22	-0439	Aug 12	21:27:24	16069	-30159	H	0.5617	1.0026	50.4N	64.3W	56	11 00m13s
03785	-21	-0421	Aug 24	05:01:15	15778	-29936	A	0.5151	0.9966	43.6N	179.2W	59	14 00m18s

03827	-20	-0403	Sep 03	12:41:28	15495	-29713	A	0.4746	0.9905	37.0N	63.7E	61	38	00m54s
03869	-19	-0385	Sep 14	20:29:28	15219	-29490	A	0.4414	0.9845	30.6N	55.8W	64	61	01m32s
03911	-18	-0367	Sep 25	04:24:51	14950	-29267	A	0.4150	0.9786	24.6N	177.3W	65	83	02m14s
03950	-17	-0349	Oct 06	12:27:26	14687	-29044	A	0.3955	0.9730	19.1N	59.5E	67	105	02m56s
03990	-16	-0331	Oct 16	20:35:36	14430	-28821	A	0.3814	0.9677	14.0N	65.0W	67	125	03m40s
04031	-15	-0313	Oct 28	04:49:09	14179	-28598	A	0.3727	0.9630	9.5N	169.3E	68	144	04m22s
04072	-14	-0295	Nov 07	13:06:53	13933	-28375	A	0.3682	0.9587	5.7N	42.8E	68	161	05m03s
04112	-13	-0277	Nov 18	21:26:20	13693	-28152	A	0.3658	0.9551	2.6N	83.9W	69	176	05m40s
04152	-12	-0259	Nov 29	05:47:16	13458	-27929	A	0.3653	0.9521	0.2N	149.2E	69	188	06m12s
04193	-11	-0241	Dec 10	14:06:33	13227	-27706	A	0.3639	0.9498	1.5S	22.9E	69	198	06m35s
04234	-10	-0223	Dec 20	22:24:11	13002	-27483	A	0.3619	0.9481	2.5S	102.9W	69	205	06m50s
04275	-09	-0204	Jan 01	06:35:33	12781	-27260	A	0.3552	0.9471	3.0S	133.0E	69	208	06m55s
04316	-08	-0186	Jan 11	14:42:38	12564	-27037	A	0.3456	0.9465	2.8S	10.0E	70	209	06m51s
04359	-07	-0168	Jan 22	22:41:06	12351	-26814	A	0.3291	0.9465	2.2S	110.7W	71	208	06m40s
04403	-06	-0150	Feb 02	06:31:32	12142	-26591	A	0.3067	0.9469	1.1S	130.6E	72	204	06m25s
04446	-05	-0132	Feb 13	14:11:16	11937	-26368	A	0.2761	0.9476	0.1N	14.8E	74	200	06m09s
04489	-04	-0114	Feb 23	21:42:08	11735	-26145	A	0.2386	0.9485	1.6N	98.7W	76	194	05m53s
04532	-03	-0096	Mar 06	05:02:17	11537	-25922	A	0.1928	0.9495	3.1N	150.7E	79	188	05m38s
04575	-02	-0078	Mar 17	12:11:29	11342	-25699	A	0.1385	0.9506	4.5N	43.0E	82	183	05m27s
04620	-01	-0060	Mar 27	19:10:48	11151	-25476	Am	0.0768	0.9515	5.6N	61.9W	86	178	05m21s
04665	00	-0042	Apr 08	02:01:04	10962	-25253	A	0.0083	0.9522	6.4N	164.3W	89	175	05m19s
04711	01	-0024	Apr 18	08:42:47	10775	-25030	A	-0.0667	0.9527	6.6N	95.5E	86	173	05m22s
04757	02	-0006	Apr 29	15:17:08	10592	-24807	A	-0.1473	0.9528	6.0N	2.7W	82	174	05m32s
04802	03	0012	May 09	21:45:58	10410	-24584	A	-0.2319	0.9525	4.5N	99.6W	77	178	05m48s
04848	04	0030	May 21	04:10:57	10230	-24361	A	-0.3188	0.9517	2.0N	164.1E	71	185	06m09s
04895	05	0048	May 31	10:32:07	10053	-24138	A	-0.4085	0.9506	1.6S	68.4E	66	198	06m33s
04939	06	0066	Jun 11	16:53:07	9877	-23915	A	-0.4979	0.9488	6.3S	27.9W	60	216	06m58s
04983	07	0084	Jun 21	23:14:05	9702	-23692	A	-0.5867	0.9466	12.1S	124.9W	54	242	07m19s

05028	08	0102	Jul 03	05:38:53	9528	-23469	A	-0.6720	0.9439	18.9S	136.3E	48	280	07m33s
05072	09	0120	Jul 13	12:05:37	9356	-23246	A	-0.7554	0.9407	26.9S	36.0E	41	336	07m36s
05116	10	0138	Jul 24	18:39:58	9184	-23023	A	-0.8320	0.9370	35.7S	67.5W	33	422	07m29s
05159	11	0156	Aug 04	01:19:27	9013	-22800	A	-0.9040	0.9328	46.1S	174.5W	25	588	07m11s
05200	12	0174	Aug 15	08:08:21	8841	-22577	A	-0.9681	0.9277	58.7S	70.7E	14	1115	06m42s
05241	13	0192	Aug 25	15:04:06	8671	-22354	P	-1.0264	0.9112	71.1S	64.5W	0		
05282	14	0210	Sep 05	22:11:04	8500	-22131	P	-1.0756	0.8274	71.6S	174.4E	0		
05323	15	0228	Sep 16	05:26:27	8328	-21908	P	-1.1176	0.7560	71.9S	50.8E	0		
05364	16	0246	Sep 27	12:51:42	8157	-21685	P	-1.1517	0.6984	72.0S	75.5W	0		
05406	17	0264	Oct 07	20:25:53	7984	-21462	P	-1.1786	0.6530	71.7S	156.1E	0		
05446	18	0282	Oct 19	04:09:45	7811	-21239	P	-1.1981	0.6202	71.3S	25.5E	0		
05486	19	0300	Oct 29	12:00:54	7638	-21016	P	-1.2118	0.5973	70.6S	106.4W	0		
05525	20	0318	Nov 09	19:58:19	7463	-20793	P	-1.2209	0.5822	69.7S	120.8E	0		
05565	21	0336	Nov 20	04:00:39	7288	-20570	P	-1.2263	0.5732	68.7S	12.6W	0		
05605	22	0354	Dec 01	12:07:06	7112	-20347	P	-1.2292	0.5686	67.7S	146.5W	0		
05645	23	0372	Dec 11	20:14:00	6935	-20124	P	-1.2320	0.5641	66.6S	80.2E	0		
05686	24	0390	Dec 23	04:21:36	6757	-19901	P	-1.2349	0.5594	65.5S	52.8W	0		
05727	25	0409	Jan 02	12:26:14	6579	-19678	P	-1.2407	0.5499	64.5S	175.3E	0		
05768	26	0427	Jan 13	20:28:41	6401	-19455	P	-1.2488	0.5366	63.6S	44.4E	0		
05809	27	0445	Jan 24	04:24:13	6222	-19232	P	-1.2630	0.5126	62.7S	84.5W	0		
05850	28	0463	Feb 04	12:15:23	6044	-19009	P	-1.2813	0.4816	62.1S	147.9E	0		
05893	29	0481	Feb 14	19:58:22	5867	-18786	P	-1.3068	0.4379	61.5S	22.6E	0		
05936	30	0499	Feb 26	03:34:26	5691	-18563	P	-1.3382	0.3834	61.2S	100.9W	0		
05980	31	0517	Mar 08	11:01:54	5514	-18340	P	-1.3770	0.3155	60.9S	137.8E	0		
06024	32	0535	Mar 19	18:22:57	5338	-18117	P	-1.4213	0.2371	60.9S	18.1E	0		
06070	33	0553	Mar 30	01:36:53	5163	-17894	P	-1.4721	0.1465	61.0S	99.8W	0		
06116	34	0571	Apr 10	08:43:42	4989	-17671	Pe	-1.5289	0.0441	61.3S	144.0E	0		

SAROS SERIES

68

Saros series 68 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
												°	km
GREATEST													
ECLIPSE													

03270	-34	-0626	Mar 16	01:05:55	19036	-32477	Pb	-1.5403	0.0422	71.6S	9.7W	0	
03316	-33	-0608	Mar 26	07:53:16	18756	-32254	P	-1.4781	0.1467	71.8S	126.7W	0	
03363	-32	-0590	Apr 06	14:34:18	18478	-32031	P	-1.4109	0.2605	71.7S	117.9E	0	
03411	-31	-0572	Apr 16	21:05:31	18202	-31808	P	-1.3355	0.3886	71.4S	5.1E	0	
03457	-30	-0554	Apr 28	03:33:20	17929	-31585	P	-1.2569	0.5225	70.9S	106.5W	0	
03502	-29	-0536	May 08	09:54:52	17657	-31362	P	-1.1725	0.6670	70.2S	144.0E	0	
03547	-28	-0518	May 19	16:14:51	17387	-31139	P	-1.0865	0.8144	69.3S	35.5E	0	
03592	-27	-0500	May 29	22:32:09	17118	-30916	A-	-0.9975	0.9670	68.4S	71.7W	0	
03637	-26	-0482	Jun 10	04:51:57	16798	-30693	A	-0.9098	0.9417	43.3S	177.8E	24	524 06m26s
03680	-25	-0464	Jun 20	11:13:11	16488	-30470	A	-0.8224	0.9439	32.0S	76.9E	34	365 06m51s

03724 -24 -0446 Jul 01 17:38:34 16186 -30247 A -0.7375 0.9451 23.7S 23.4W 42 299 07m03s
03768 -23 -0428 Jul 12 00:09:36 15892 -30024 A -0.6564 0.9456 17.3S 124.1W 49 264 07m07s
03810 -22 -0410 Jul 23 06:47:50 15606 -29801 A -0.5804 0.9456 12.7S 134.2E 54 243 07m03s
03852 -21 -0392 Aug 02 13:34:16 15327 -29578 A -0.5104 0.9452 9.7S 31.0E 59 232 06m56s
03894 -20 -0374 Aug 13 20:28:56 15055 -29355 A -0.4465 0.9445 8.0S 73.9W 63 226 06m47s
03935 -19 -0356 Aug 24 03:34:30 14790 -29132 A -0.3907 0.9437 7.7S 178.6E 67 224 06m39s
03974 -18 -0338 Sep 04 10:49:39 14531 -28909 A -0.3420 0.9427 8.5S 68.8E 70 223 06m33s
04015 -17 -0320 Sep 14 18:15:18 14277 -28686 A -0.3015 0.9418 10.3S 43.6W 72 224 06m29s
04056 -16 -0302 Sep 26 01:50:57 14030 -28463 A -0.2686 0.9411 12.9S 158.6W 74 225 06m26s
04097 -15 -0284 Oct 06 09:37:04 13787 -28240 A -0.2438 0.9406 16.0S 83.8E 76 226 06m25s
04137 -14 -0266 Oct 17 17:31:31 13550 -28017 A -0.2251 0.9405 19.5S 35.7W 77 225 06m24s
04177 -13 -0248 Oct 28 01:33:12 13318 -27794 A -0.2115 0.9408 23.1S 156.8W 78 224 06m21s
04218 -12 -0230 Nov 08 09:41:29 13090 -27571 A -0.2028 0.9417 26.6S 80.8E 78 220 06m17s
04258 -11 -0212 Nov 18 17:55:03 12867 -27348 A -0.1981 0.9431 29.7S 42.4W 78 214 06m10s
04299 -10 -0194 Nov 30 02:10:48 12649 -27125 A -0.1943 0.9452 32.2S 165.6W 79 206 05m58s
04341 -09 -0176 Dec 10 10:28:09 12434 -26902 A -0.1911 0.9479 33.9S 71.3E 79 195 05m43s
04385 -08 -0158 Dec 21 18:44:20 12224 -26679 A -0.1862 0.9514 34.5S 51.2W 79 181 05m22s
04428 -07 -0139 Jan 01 02:59:33 12017 -26456 A -0.1796 0.9554 34.0S 173.4W 79 166 04m57s
04471 -06 -0121 Jan 12 11:09:11 11815 -26233 A -0.1679 0.9601 32.1S 65.5E 80 147 04m27s
04514 -05 -0103 Jan 22 19:15:23 11615 -26010 A -0.1527 0.9652 29.1S 55.3W 81 127 03m53s
04557 -04 -0085 Feb 03 03:13:49 11419 -25787 A -0.1302 0.9709 25.0S 175.0W 82 105 03m15s
04602 -03 -0067 Feb 13 11:06:56 11226 -25564 A -0.1026 0.9769 20.0S 65.9E 84 83 02m35s
04647 -02 -0049 Feb 24 18:50:54 11036 -25341 A -0.0666 0.9831 14.1S 51.6W 86 60 01m52s
04692 -01 -0031 Mar 07 02:29:23 10849 -25118 A -0.0252 0.9895 7.7S 168.3W 89 37 01m09s
04739 00 -0013 Mar 18 09:59:34 10664 -24895 A 0.0238 0.9959 0.8S 76.6E 89 14 00m27s
04784 01 0005 Mar 28 17:23:34 10481 -24672 H 0.0789 1.0022 6.6N 37.2W 85 8 00m14s
04830 02 0023 Apr 09 00:41:09 10301 -24449 Hm 0.1404 1.0082 14.2N 149.4W 82 29 00m51s
04876 03 0041 Apr 19 07:54:46 10123 -24226 H 0.2062 1.0139 22.0N 99.5E 78 49 01m24s

04921	04	0059	Apr 30	15:04:34	9946 -24003	T	0.2762	1.0191	29.8N	10.2W	74	68	01m50s
04965	05	0077	May 10	22:11:37	9771 -23780	T	0.3493	1.0238	37.5N	118.6W	69	86	02m10s
05010	06	0095	May 22	05:17:54	9597 -23557	T	0.4242	1.0277	45.0N	134.3E	65	104	02m22s
05055	07	0113	Jun 01	12:24:30	9424 -23334	T	0.5000	1.0310	52.1N	28.7E	60	121	02m29s
05099	08	0131	Jun 12	19:32:12	9252 -23111	T	0.5756	1.0335	58.6N	74.8W	55	139	02m31s
05143	09	0149	Jun 23	02:42:52	9080 -22888	T	0.6495	1.0352	64.1N	175.6W	49	156	02m29s
05185	10	0167	Jul 04	09:57:52	8909 -22665	T	0.7207	1.0361	68.2N	87.0E	44	176	02m24s
05225	11	0185	Jul 14	17:18:39	8738 -22442	T	0.7879	1.0362	70.2N	7.9W	38	198	02m17s
05266	12	0203	Jul 26	00:44:37	8567 -22219	T	0.8516	1.0355	70.3N	102.6W	31	229	02m09s
05307	13	0221	Aug 05	08:18:57	8396 -21996	T	0.9089	1.0339	68.8N	159.0E	24	276	01m58s
05348	14	0239	Aug 16	16:00:15	8224 -21773	T	0.9611	1.0313	66.4N	58.8E	15	392	01m45s
05389	15	0257	Aug 26	23:51:08	8052 -21550	P	1.0060	0.9969	61.3N	34.3W	0		
05430	16	0275	Sep 07	07:49:10	7880 -21327	P	1.0456	0.9222	61.0N	163.3W	0		
05470	17	0293	Sep 17	15:57:50	7706 -21104	P	1.0773	0.8624	60.9N	65.1E	0		
05509	18	0311	Sep 29	00:14:07	7532 -20881	P	1.1035	0.8130	60.9N	68.3W	0		
05549	19	0329	Oct 09	08:39:31	7357 -20658	P	1.1227	0.7769	61.0N	155.9E	0		
05589	20	0347	Oct 20	17:12:08	7181 -20435	P	1.1367	0.7504	61.4N	18.3E	0		
05629	21	0365	Oct 31	01:52:16	7005 -20212	P	1.1450	0.7347	61.9N	121.4W	0		
05670	22	0383	Nov 11	10:37:14	6827 -19989	P	1.1502	0.7249	62.5N	97.7E	0		
05711	23	0401	Nov 21	19:26:03	6649 -19766	P	1.1528	0.7201	63.3N	44.5W	0		
05752	24	0419	Dec 03	04:17:38	6471 -19543	P	1.1536	0.7187	64.2N	172.4E	0		
05793	25	0437	Dec 13	13:10:27	6293 -19320	P	1.1533	0.7193	65.1N	28.6E	0		
05833	26	0455	Dec 24	22:01:42	6114 -19097	P	1.1551	0.7163	66.2N	115.2W	0		
05876	27	0474	Jan 04	06:50:38	5937 -18874	P	1.1589	0.7095	67.3N	101.1E	0		
05919	28	0492	Jan 15	15:35:24	5760 -18651	P	1.1665	0.6957	68.3N	42.1W	0		
05963	29	0510	Jan 26	00:15:39	5583 -18428	P	1.1778	0.6746	69.3N	175.2E	0		
06007	30	0528	Feb 06	08:48:21	5407 -18205	P	1.1955	0.6417	70.2N	33.8E	0		
06052	31	0546	Feb 16	17:15:08	5232 -17982	P	1.2181	0.5989	70.9N	106.7W	0		

06098 32 0564 Feb 28 01:33:17 5058 -17759 P 1.2481 0.5419 71.5N 114.5E 0
06144 33 0582 Mar 10 09:44:43 4885 -17536 P 1.2837 0.4737 71.8N 23.1W 0
06190 34 0600 Mar 20 17:47:01 4713 -17313 P 1.3269 0.3907 71.8N 158.5W 0
06235 35 0618 Apr 01 01:42:57 4543 -17090 P 1.3754 0.2969 71.6N 67.9E 0
06280 36 0636 Apr 11 09:31:19 4375 -16867 P 1.4301 0.1909 71.2N 63.6W 0
06326 37 0654 Apr 22 17:13:12 4208 -16644 Pe 1.4901 0.0743 70.6N 167.0E 0

SAROS SERIES

69

Saros series 69 contains 78 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
											ECLIPSE		

03029 -42 -0724 Dec 09 02:48:54 20582 -33680 Pb 1.5521 0.0055 67.5N 130.3W 0
03073 -41 -0706 Dec 20 11:15:50 20291 -33457 P 1.5448 0.0165 66.4N 90.9E 0
03117 -40 -0688 Dec 30 19:40:35 20002 -33234 P 1.5350 0.0315 65.3N 46.8W 0
03162 -39 -0669 Jan 11 03:59:58 19715 -33011 P 1.5201 0.0558 64.3N 177.2E 0

03207	-38	-0651	Jan 21	12:14:48	19430	-32788	P	1.5007	0.0881	63.4N	42.7E	0
03252	-37	-0633	Feb 01	20:22:42	19147	-32565	P	1.4748	0.1322	62.6N	89.8W	0
03298	-36	-0615	Feb 12	04:23:39	18866	-32342	P	1.4425	0.1884	61.9N	139.7E	0
03345	-35	-0597	Feb 23	12:17:04	18588	-32119	P	1.4032	0.2581	61.4N	11.3E	0
03392	-34	-0579	Mar 05	20:03:40	18311	-31896	P	1.3576	0.3403	61.0N	115.3W	0
03439	-33	-0561	Mar 17	03:42:26	18036	-31673	P	1.3048	0.4368	60.8N	120.1E	0
03485	-32	-0543	Mar 27	11:15:28	17764	-31450	P	1.2463	0.5450	60.7N	3.0W	0
03530	-31	-0525	Apr 07	18:42:21	17493	-31227	P	1.1819	0.6655	60.8N	124.5W	0
03575	-30	-0507	Apr 18	02:06:04	17225	-31004	P	1.1138	0.7942	61.0N	114.7E	0
03620	-29	-0489	Apr 29	09:24:17	16924	-30781	P	1.0402	0.9342	61.4N	5.0W	0
03664	-28	-0471	May 09	16:41:49	16609	-30558	T	0.9651	1.0386	67.3N	92.6W	15 509 02m06s
03708	-27	-0453	May 20	23:57:02	16304	-30335	T	0.8874	1.0460	69.4N	175.5W	27 333 02m40s
03751	-26	-0435	May 31	07:14:08	16007	-30112	T	0.8101	1.0514	69.3N	94.5E	36 291 03m07s
03794	-25	-0417	Jun 11	14:30:53	15718	-29889	T	0.7318	1.0555	67.4N	1.2E	43 269 03m32s
03836	-24	-0399	Jun 21	21:52:27	15437	-29666	T	0.6567	1.0585	64.1N	97.5W	49 256 03m53s
03878	-23	-0381	Jul 03	05:16:57	15162	-29443	T	0.5837	1.0606	59.5N	159.1E	54 246 04m13s
03919	-22	-0363	Jul 13	12:47:19	14894	-29220	T	0.5151	1.0618	54.2N	51.0E	59 237 04m30s
03958	-21	-0345	Jul 24	20:22:43	14632	-28997	T	0.4502	1.0621	48.2N	60.8W	63 229 04m44s
03998	-20	-0327	Aug 04	04:06:08	14377	-28774	T	0.3918	1.0618	41.9N	176.2W	67 221 04m54s
04039	-19	-0309	Aug 15	11:56:49	14127	-28551	T	0.3394	1.0609	35.5N	65.4E	70 212 05m00s
04081	-18	-0291	Aug 25	19:55:06	13882	-28328	T	0.2931	1.0595	29.1N	55.7W	73 205 05m02s
04121	-17	-0273	Sep 06	04:02:20	13643	-28105	T	0.2543	1.0578	22.8N	179.4W	75 197 05m00s
04161	-16	-0255	Sep 16	12:17:51	13409	-27882	T	0.2223	1.0559	16.7N	54.5E	77 189 04m55s
04202	-15	-0237	Sep 27	20:42:09	13180	-27659	T	0.1973	1.0539	10.8N	73.8W	79 181 04m49s
04243	-14	-0219	Oct 08	05:13:14	12955	-27436	T	0.1780	1.0519	5.3N	156.4E	80 175 04m43s
04284	-13	-0201	Oct 19	13:52:09	12735	-27213	T	0.1652	1.0501	0.4N	24.7E	80 169 04m37s
04325	-12	-0183	Oct 29	22:36:26	12519	-26990	T	0.1566	1.0486	4.1S	107.9W	81 163 04m32s
04368	-11	-0165	Nov 10	07:25:27	12307	-26767	T	0.1519	1.0475	7.9S	118.6E	81 160 04m28s

04411 -10 -0147 Nov 20 16:17:33 12099 -26544 T 0.1496 1.0468 11.0S 15.4W 81 157 04m26s
 04454 -09 -0129 Dec 02 01:12:00 11894 -26321 T 0.1490 1.0465 13.3S 149.6W 82 156 04m25s
 04497 -08 -0111 Dec 12 10:05:34 11693 -26098 T 0.1478 1.0467 14.8S 76.7E 82 157 04m26s
 04540 -07 -0093 Dec 23 18:57:31 11496 -25875 T 0.1453 1.0474 15.5S 56.5W 82 159 04m28s
 04585 -06 -0074 Jan 03 03:45:55 11302 -25652 T 0.1398 1.0485 15.5S 171.3E 82 163 04m30s
 04630 -05 -0056 Jan 14 12:30:30 11111 -25429 T 0.1310 1.0499 14.7S 39.9E 83 167 04m33s
 04675 -04 -0038 Jan 24 21:07:27 10922 -25206 T 0.1161 1.0517 13.5S 89.5W 83 172 04m37s
 04721 -03 -0020 Feb 05 05:38:33 10736 -24983 Tm 0.0964 1.0536 11.8S 142.4E 85 178 04m40s
 04767 -02 -0002 Feb 15 14:00:36 10553 -24760 T 0.0693 1.0557 9.8S 16.5E 86 184 04m45s
 04812 -01 0016 Feb 26 22:16:04 10372 -24537 T 0.0369 1.0576 7.7S 107.9W 88 190 04m50s
 04858 00 0034 Mar 09 06:20:44 10193 -24314 T -0.0045 1.0594 5.6S 130.6E 90 195 04m56s
 04903 01 0052 Mar 19 14:19:19 10015 -24091 T -0.0509 1.0609 3.7S 10.6E 87 200 05m02s
 04947 02 0070 Mar 30 22:07:59 9840 -23868 T -0.1051 1.0619 2.1S 106.9W 84 204 05m08s
 04991 03 0088 Apr 10 05:50:43 9665 -23645 T -0.1642 1.0625 1.0S 137.2E 81 207 05m15s
 05036 04 0106 Apr 21 13:25:03 9492 -23422 T -0.2300 1.0623 0.7S 23.5E 77 209 05m22s
 05081 05 0124 May 01 20:55:09 9319 -23199 T -0.2990 1.0615 1.1S 89.2W 73 211 05m26s
 05125 06 0142 May 13 04:19:27 9148 -22976 T -0.3722 1.0598 2.5S 159.4E 68 211 05m28s
 05168 07 0160 May 23 11:40:03 8976 -22753 T -0.4481 1.0573 5.0S 48.6E 63 210 05m24s
 05209 08 0178 Jun 03 18:57:36 8805 -22530 T -0.5255 1.0540 8.6S 61.9W 58 209 05m13s
 05250 09 0196 Jun 14 02:14:22 8634 -22307 T -0.6028 1.0498 13.3S 172.8W 53 207 04m54s
 05291 10 0214 Jun 25 09:30:41 8463 -22084 T -0.6796 1.0448 19.2S 75.6E 47 203 04m23s
 05332 11 0232 Jul 05 16:47:56 8292 -21861 T -0.7547 1.0389 26.1S 37.0W 41 199 03m44s
 05373 12 0250 Jul 17 00:07:55 8120 -21638 T -0.8264 1.0322 34.2S 151.5W 34 194 02m57s
 05414 13 0268 Jul 27 07:31:46 7948 -21415 T -0.8938 1.0247 43.5S 91.3E 26 188 02m07s
 05454 14 0286 Aug 07 14:59:28 7775 -21192 T -0.9570 1.0161 55.1S 30.7W 16 194 01m15s
 05494 15 0304 Aug 17 22:33:03 7601 -20969 P -1.0145 0.9705 70.7S 173.1W 0
 05533 16 0322 Aug 29 06:13:02 7426 -20746 P -1.0658 0.8736 71.3S 57.9E 0
 05573 17 0340 Sep 08 14:00:38 7251 -20523 P -1.1098 0.7912 71.7S 73.6W 0

05613	18	0358	Sep 19	21:53:58	7074	-20300	P	-1.1483	0.7198	71.9S	153.2E	0
05654	19	0376	Sep 30	05:55:50	6897	-20077	P	-1.1791	0.6633	71.9S	17.8E	0
05695	20	0394	Oct 11	14:04:04	6720	-19854	P	-1.2040	0.6179	71.6S	119.1W	0
05736	21	0412	Oct 21	22:19:21	6541	-19631	P	-1.2225	0.5845	71.0S	102.6E	0
05777	22	0430	Nov 02	06:38:40	6363	-19408	P	-1.2369	0.5587	70.3S	36.2W	0
05817	23	0448	Nov 12	15:03:08	6185	-19185	P	-1.2465	0.5416	69.4S	175.6W	0
05859	24	0466	Nov 23	23:29:39	6007	-18962	P	-1.2537	0.5290	68.3S	45.2E	0
05902	25	0484	Dec 04	07:57:06	5830	-18739	P	-1.2595	0.5187	67.2S	93.7W	0
05946	26	0502	Dec 15	16:23:51	5653	-18516	P	-1.2652	0.5088	66.2S	128.2E	0
05990	27	0520	Dec 26	00:48:33	5476	-18293	P	-1.2721	0.4969	65.1S	9.0W	0
06034	28	0539	Jan 06	09:08:45	5301	-18070	P	-1.2818	0.4803	64.1S	144.5W	0
06080	29	0557	Jan 16	17:22:42	5126	-17847	P	-1.2959	0.4558	63.2S	81.8E	0
06126	30	0575	Jan 28	01:30:01	4953	-17624	P	-1.3147	0.4234	62.4S	49.9W	0
06172	31	0593	Feb 07	09:29:17	4781	-17401	P	-1.3396	0.3804	61.8S	179.5W	0
06217	32	0611	Feb 18	17:18:20	4610	-17178	P	-1.3719	0.3245	61.3S	53.8E	0
06262	33	0629	Mar 01	00:58:09	4441	-16955	P	-1.4107	0.2572	61.0S	70.6W	0
06307	34	0647	Mar 12	08:27:23	4273	-16732	P	-1.4573	0.1764	60.8S	167.7E	0
06354	35	0665	Mar 22	15:47:20	4108	-16509	Pe	-1.5106	0.0840	60.8S	48.4E	0

SAROS SERIES

70

Saros series 70 contains 84 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
02804	-49	-0821 Sep 05	00:54:14	22189	-34883	Pb	-1.5106	0.0413	61.3S	171.0W	0		
02845	-48	-0803 Sep 15	09:13:10	21886	-34660	P	-1.4824	0.0966	61.0S	54.2E	0		
02886	-47	-0785 Sep 26	17:39:36	21586	-34437	P	-1.4605	0.1394	60.8S	82.4W	0		
02927	-46	-0767 Oct 07	02:13:14	21288	-34214	P	-1.4446	0.1707	60.8S	139.3E	0		
02969	-45	-0749 Oct 18	10:53:50	20992	-33991	P	-1.4347	0.1904	61.0S	0.8W	0		
03011	-44	-0731 Oct 28	19:38:52	20698	-33768	P	-1.4286	0.2025	61.3S	142.1W	0		
03055	-43	-0713 Nov 09	04:28:32	20406	-33545	P	-1.4268	0.2066	61.8S	75.4E	0		
03099	-42	-0695 Nov 19	13:20:05	20116	-33322	P	-1.4268	0.2071	62.5S	67.8W	0		
03144	-41	-0677 Nov 30	22:13:15	19828	-33099	P	-1.4286	0.2040	63.3S	148.4E	0		
03189	-40	-0659 Dec 11	07:03:44	19542	-32876	P	-1.4287	0.2038	64.2S	5.0E	0		
03234	-39	-0641 Dec 22	15:53:17	19258	-32653	P	-1.4287	0.2039	65.1S	138.5W	0		
03280	-38	-0622 Jan 02	00:37:29	18977	-32430	P	-1.4255	0.2098	66.2S	79.0E	0		
03326	-37	-0604 Jan 13	09:16:42	18697	-32207	P	-1.4187	0.2223	67.2S	62.8W	0		
03373	-36	-0586 Jan 23	17:47:38	18420	-31984	P	-1.4060	0.2458	68.2S	157.0E	0		
03421	-35	-0568 Feb 04	02:12:07	18144	-31761	P	-1.3889	0.2776	69.2S	17.8E	0		
03467	-34	-0550 Feb 14	10:27:15	17871	-31538	P	-1.3651	0.3219	70.1S	119.5W	0		
03512	-33	-0532 Feb 25	18:33:18	17600	-31315	P	-1.3347	0.3787	70.8S	104.8E	0		
03557	-32	-0514 Mar 08	02:30:09	17331	-31092	P	-1.2977	0.4481	71.3S	29.1W	0		
03602	-31	-0496 Mar 18	10:18:15	17050	-30869	P	-1.2540	0.5302	71.6S	161.1W	0		
03647	-30	-0478 Mar 29	17:57:45	16732	-30646	P	-1.2039	0.6240	71.7S	68.7E	0		
03691	-29	-0460 Apr 09	01:28:57	16423	-30423	P	-1.1479	0.7291	71.5S	59.3W	0		

03734 -28 -0442 Apr 20 08:53:18 16123 -30200 P -1.0866 0.8437 71.2S 174.6E 0

03778 -27 -0424 Apr 30 16:11:23 15831 -29977 P -1.0208 0.9663 70.6S 50.6E 0

03820 -26 -0406 May 11 23:23:29 15547 -29754 T -0.9507 1.0249 54.1S 88.5W 18 278 01m56s

03862 -25 -0388 May 22 06:32:18 15269 -29531 T -0.8785 1.0251 41.8S 153.6E 28 179 02m12s

03904 -24 -0370 Jun 02 13:37:55 14999 -29308 T -0.8041 1.0238 32.1S 40.6E 36 136 02m17s

03943 -23 -0352 Jun 12 20:43:07 14735 -29085 T -0.7303 1.0213 24.1S 70.5W 43 106 02m11s

03982 -22 -0334 Jun 24 03:46:52 14477 -28862 T -0.6560 1.0179 17.3S 179.8E 49 81 01m55s

04023 -21 -0316 Jul 04 10:53:21 14225 -28639 H3 -0.5847 1.0137 12.0S 70.4E 54 58 01m30s

04064 -20 -0298 Jul 15 18:01:16 13978 -28416 H -0.5152 1.0089 7.7S 38.6W 59 36 00m59s

04105 -19 -0280 Jul 26 01:13:50 13737 -28193 H -0.4506 1.0037 4.9S 148.3W 63 14 00m24s

04145 -18 -0262 Aug 06 08:30:11 13501 -27970 A -0.3900 0.9979 3.2S 101.5E 67 8 00m13s

04186 -17 -0244 Aug 16 15:53:47 13269 -27747 A -0.3361 0.9920 2.8S 10.4W 70 30 00m51s

04227 -16 -0226 Aug 27 23:23:22 13043 -27524 A -0.2879 0.9858 3.4S 123.6W 73 52 01m28s

04268 -15 -0208 Sep 07 07:00:00 12821 -27301 A -0.2462 0.9797 4.9S 121.3E 76 74 02m05s

04309 -14 -0190 Sep 18 14:44:22 12603 -27078 A -0.2118 0.9736 7.3S 4.3E 78 96 02m41s

04351 -13 -0172 Sep 28 22:36:11 12390 -26855 A -0.1846 0.9679 10.3S 114.6W 79 117 03m17s

04395 -12 -0154 Oct 10 06:35:16 12180 -26632 A -0.1637 0.9624 13.7S 124.7E 80 138 03m52s

04437 -11 -0136 Oct 20 14:39:14 11974 -26409 A -0.1476 0.9574 17.2S 2.9E 81 157 04m26s

04480 -10 -0118 Oct 31 22:49:30 11772 -26186 A -0.1375 0.9529 20.8S 120.2W 82 174 05m00s

04523 -09 -0100 Nov 11 07:02:52 11573 -25963 A -0.1308 0.9490 24.1S 116.3E 82 189 05m32s

04566 -08 -0082 Nov 22 15:19:03 11378 -25740 A -0.1272 0.9458 27.0S 7.5W 83 201 06m01s

04611 -07 -0064 Dec 02 23:34:49 11186 -25517 Am -0.1241 0.9432 29.1S 130.7W 83 212 06m28s

04656 -06 -0046 Dec 14 07:50:16 10996 -25294 A -0.1213 0.9413 30.4S 106.5E 83 219 06m50s

04702 -05 -0028 Dec 24 16:01:49 10809 -25071 A -0.1161 0.9400 30.5S 15.1W 83 224 07m08s

04749 -04 -0009 Jan 05 00:08:42 10625 -24848 A -0.1079 0.9393 29.4S 135.6W 84 227 07m21s

04794 -03 0009 Jan 15 08:08:55 10443 -24625 A -0.0949 0.9392 27.2S 105.2E 84 227 07m30s

04840 -02 0027 Jan 26 16:02:14 10263 -24402 A -0.0771 0.9395 23.8S 13.0W 85 225 07m34s

04886 -01 0045 Feb 05 23:45:29 10085 -24179 A -0.0514 0.9402 19.2S 129.3W 87 222 07m34s

04930	00	0063	Feb 17	07:19:50	9909	-23956	A	-0.0188	0.9412	13.8S	115.9E	89	218	07m30s
04974	01	0081	Feb 27	14:43:32	9734	-23733	A	0.0220	0.9424	7.6S	3.1E	89	213	07m23s
05019	02	0099	Mar 10	21:58:35	9560	-23510	A	0.0692	0.9437	0.8S	108.0W	86	208	07m12s
05063	03	0117	Mar 21	05:01:14	9387	-23287	A	0.1263	0.9449	6.6N	143.6E	83	205	06m59s
05107	04	0135	Apr 01	11:56:36	9215	-23064	A	0.1888	0.9460	14.3N	36.9E	79	202	06m43s
05151	05	0153	Apr 11	18:41:20	9044	-22841	A	0.2599	0.9470	22.5N	67.2W	75	202	06m24s
05193	06	0171	Apr 23	01:20:33	8873	-22618	A	0.3349	0.9476	30.9N	169.7W	70	204	06m04s
05234	07	0189	May 03	07:50:35	8702	-22395	A	0.4170	0.9478	39.5N	90.5E	65	211	05m43s
05275	08	0207	May 14	14:17:53	8531	-22172	A	0.5008	0.9476	48.1N	7.7W	60	223	05m22s
05316	09	0225	May 24	20:39:31	8360	-21949	A	0.5890	0.9468	56.8N	103.0W	54	243	05m02s
05357	10	0243	Jun 05	03:00:14	8188	-21726	A	0.6774	0.9456	65.4N	164.8E	47	274	04m45s
05398	11	0261	Jun 15	09:19:24	8016	-21503	A	0.7667	0.9436	73.7N	79.7E	40	326	04m31s
05438	12	0279	Jun 26	15:41:17	7843	-21280	A	0.8534	0.9410	80.3N	15.7E	31	423	04m20s
05478	13	0297	Jul 06	22:05:39	7670	-21057	A	0.9379	0.9373	78.8N	15.1W	20	688	04m12s
05517	14	0315	Jul 18	04:34:43	7495	-20834	P	1.0183	0.9296	63.5N	74.6W	0		
05557	15	0333	Jul 28	11:09:49	7320	-20611	P	1.0937	0.8007	62.8N	176.6E	0		
05597	16	0351	Aug 08	17:52:21	7144	-20388	P	1.1632	0.6821	62.1N	66.2E	0		
05637	17	0369	Aug 19	00:43:14	6967	-20165	P	1.2258	0.5758	61.5N	46.2W	0		
05679	18	0387	Aug 30	07:43:13	6790	-19942	P	1.2812	0.4820	61.1N	160.7W	0		
05720	19	0405	Sep 09	14:53:32	6612	-19719	P	1.3285	0.4022	60.9N	82.3E	0		
05761	20	0423	Sep 20	22:13:51	6433	-19496	P	1.3680	0.3358	60.8N	37.2W	0		
05802	21	0441	Oct 01	05:43:30	6255	-19273	P	1.4003	0.2818	60.9N	159.0W	0		
05843	22	0459	Oct 12	13:23:10	6077	-19050	P	1.4248	0.2409	61.1N	76.7E	0		
05886	23	0477	Oct 22	21:11:13	5899	-18827	P	1.4426	0.2113	61.5N	49.8W	0		
05929	24	0495	Nov 03	05:07:15	5723	-18604	P	1.4546	0.1912	62.0N	178.4W	0		
05973	25	0513	Nov 13	13:08:18	5546	-18381	P	1.4630	0.1770	62.7N	51.6E	0		
06017	26	0531	Nov 24	21:15:03	5370	-18158	P	1.4671	0.1697	63.5N	80.1W	0		
06062	27	0549	Dec 05	05:24:33	5195	-17935	P	1.4693	0.1655	64.5N	147.2E	0		

06108	28	0567	Dec 16	13:35:23	5021	-17712	P	1.4708	0.1621	65.5N	13.9E	0
06154	29	0585	Dec 26	21:45:28	4849	-17489	P	1.4733	0.1569	66.5N	119.7W	0
06199	30	0604	Jan 07	05:53:30	4677	-17266	P	1.4780	0.1475	67.6N	106.7E	0
06244	31	0622	Jan 17	13:58:14	4508	-17043	P	1.4858	0.1326	68.7N	26.7W	0
06289	32	0640	Jan 28	21:57:14	4339	-16820	P	1.4986	0.1089	69.6N	159.2W	0
06335	33	0658	Feb 08	05:51:03	4173	-16597	P	1.5160	0.0767	70.4N	69.0E	0
06381	34	0676	Feb 19	13:37:43	4008	-16374	Pe	1.5396	0.0335	71.1N	61.6W	0

SAROS SERIES

71

Saros series 71 contains 82 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

03127	-33	-0684	Oct 19	05:26:05	19941	-33187	Pb	1.5574	0.0158	71.3N	114.3W	0
03172	-32	-0666	Oct 30	13:27:48	19655	-32964	P	1.5517	0.0273	70.8N	110.4E	0
03217	-31	-0648	Nov 09	21:32:17	19370	-32741	P	1.5487	0.0338	70.0N	25.0W	0

03262	-30	-0630	Nov 21	05:39:10	19088	-32518	P	1.5478	0.0364	69.1N	160.3W	0
03308	-29	-0612	Dec 01	13:45:29	18807	-32295	P	1.5469	0.0388	68.1N	65.1E	0
03355	-28	-0594	Dec 12	21:51:21	18529	-32072	P	1.5457	0.0411	67.1N	68.8W	0
03402	-27	-0576	Dec 23	05:51:59	18253	-31849	P	1.5407	0.0497	66.0N	159.3E	0
03449	-26	-0557	Jan 03	13:48:54	17979	-31626	P	1.5329	0.0626	65.0N	28.7E	0
03494	-25	-0539	Jan 13	21:37:44	17707	-31403	P	1.5187	0.0859	64.0N	99.4W	0
03539	-24	-0521	Jan 25	05:20:10	17437	-31180	P	1.4997	0.1170	63.1N	134.4E	0
03584	-23	-0503	Feb 04	12:51:39	17169	-30957	P	1.4717	0.1630	62.3N	11.2E	0
03629	-22	-0485	Feb 15	20:15:44	16857	-30734	P	1.4379	0.2191	61.7N	110.1W	0
03672	-21	-0467	Feb 26	03:28:46	16544	-30511	P	1.3949	0.2908	61.2N	131.5E	0
03716	-20	-0449	Mar 09	10:32:43	16241	-30288	P	1.3445	0.3753	60.9N	15.5E	0
03760	-19	-0431	Mar 19	17:26:30	15946	-30065	P	1.2856	0.4745	60.7N	97.9W	0
03803	-18	-0413	Mar 31	00:12:50	15658	-29842	P	1.2205	0.5850	60.6N	150.7E	0
03845	-17	-0395	Apr 10	06:51:24	15378	-29619	P	1.1483	0.7080	60.8N	41.2E	0
03887	-16	-0377	Apr 21	13:22:31	15105	-29396	P	1.0698	0.8424	61.0N	66.4W	0
03928	-15	-0359	May 01	19:49:10	14838	-29173	An	0.9871	0.9357	64.7N	156.3W	8 - 04m13s
03967	-14	-0341	May 13	02:12:00	14578	-28950	A	0.9010	0.9417	67.4N	141.8E	25 497 04m15s
04007	-13	-0323	May 23	08:32:52	14323	-28727	A	0.8126	0.9453	66.8N	66.3E	35 345 04m15s
04048	-12	-0305	Jun 03	14:53:00	14075	-28504	A	0.7228	0.9481	64.8N	13.5W	43 276 04m17s
04089	-11	-0287	Jun 13	21:15:08	13831	-28281	A	0.6341	0.9501	61.4N	97.6W	50 237 04m22s
04129	-10	-0269	Jun 25	03:40:35	13593	-28058	A	0.5476	0.9515	56.8N	173.8E	57 213 04m31s
04169	-09	-0251	Jul 05	10:09:32	13360	-27835	A	0.4633	0.9524	51.3N	81.3E	62 197 04m44s
04210	-08	-0233	Jul 16	16:45:14	13132	-27612	A	0.3839	0.9528	45.2N	15.1W	67 187 04m58s
04251	-07	-0215	Jul 26	23:28:05	12908	-27389	A	0.3097	0.9528	38.7N	115.1W	72 182 05m14s
04292	-06	-0197	Aug 07	06:20:16	12689	-27166	A	0.2424	0.9525	32.0N	141.4E	76 179 05m29s
04334	-05	-0179	Aug 17	13:20:51	12474	-26943	A	0.1813	0.9519	25.2N	34.9E	79 179 05m43s
04377	-04	-0161	Aug 28	20:32:49	12262	-26720	A	0.1290	0.9513	18.5N	74.9W	82 180 05m54s
04420	-03	-0143	Sep 08	03:54:50	12055	-26497	A	0.0843	0.9505	11.9N	172.5E	85 182 06m03s

04463 -02 -0125 Sep 19 11:27:28 11852 -26274 A 0.0475 0.9500 5.6N 57.1E 87 184 06m08s
 04506 -01 -0107 Sep 29 19:10:01 11652 -26051 A 0.0183 0.9495 0.4S 60.6W 89 185 06m12s
 04549 00 -0089 Oct 11 03:02:29 11455 -25828 A -0.0036 0.9494 6.0S 179.4E 90 186 06m12s
 04593 01 -0071 Oct 21 11:03:45 11261 -25605 A -0.0186 0.9495 11.1S 57.5E 89 185 06m09s
 04638 02 -0053 Nov 01 19:11:14 11071 -25382 A -0.0294 0.9503 15.7S 65.4W 88 182 06m02s
 04683 03 -0035 Nov 12 03:25:54 10883 -25159 A -0.0348 0.9515 19.4S 170.4E 88 178 05m51s
 04730 04 -0017 Nov 23 11:44:10 10698 -24936 A -0.0384 0.9533 22.5S 45.7E 88 171 05m35s
 04776 05 0001 Dec 03 20:05:38 10515 -24713 A -0.0397 0.9558 24.7S 79.2W 88 161 05m14s
 04822 06 0019 Dec 15 04:26:24 10334 -24490 A -0.0425 0.9589 26.0S 156.3E 87 150 04m47s
 04868 07 0037 Dec 25 12:47:35 10155 -24267 A -0.0458 0.9626 26.4S 31.9E 87 136 04m15s
 04913 08 0056 Jan 05 21:05:29 9978 -24044 Am -0.0529 0.9669 26.1S 91.7W 87 119 03m39s
 04957 09 0074 Jan 16 05:19:43 9803 -23821 A -0.0638 0.9718 25.0S 145.5E 86 101 03m01s
 05001 10 0092 Jan 27 13:28:08 9629 -23598 A -0.0807 0.9772 23.4S 24.0E 85 82 02m22s
 05046 11 0110 Feb 06 21:31:05 9456 -23375 A -0.1029 0.9829 21.4S 96.4W 84 61 01m43s
 05090 12 0128 Feb 18 05:26:41 9283 -23152 A -0.1321 0.9890 19.2S 144.8E 82 39 01m04s
 05134 13 0146 Feb 28 13:15:23 9112 -22929 A -0.1681 0.9953 17.0S 27.6E 80 17 00m27s
 05176 14 0164 Mar 10 20:56:48 8940 -22706 H -0.2112 1.0016 14.9S 88.0W 78 6 00m09s
 05217 15 0182 Mar 22 04:32:06 8769 -22483 H -0.2602 1.0078 13.1S 158.0E 75 28 00m44s
 05258 16 0200 Apr 01 11:59:38 8598 -22260 H -0.3166 1.0139 11.8S 45.9E 71 50 01m17s
 05299 17 0218 Apr 12 19:22:42 8427 -22037 T -0.3774 1.0195 11.2S 65.2W 68 71 01m49s
 05341 18 0236 Apr 23 02:40:05 8256 -21814 T -0.4436 1.0248 11.5S 175.0W 64 93 02m20s
 05382 19 0254 May 04 09:55:34 8084 -21591 T -0.5125 1.0294 12.7S 75.5E 59 114 02m49s
 05423 20 0272 May 14 17:06:05 7912 -21368 T -0.5860 1.0334 15.2S 33.0W 54 137 03m13s
 05463 21 0290 May 26 00:17:58 7738 -21145 T -0.6592 1.0365 18.8S 142.4W 49 162 03m32s
 05502 22 0308 Jun 05 07:28:21 7564 -20922 T -0.7341 1.0389 23.7S 108.1E 43 191 03m42s
 05541 23 0326 Jun 16 14:42:01 7389 -20699 T -0.8071 1.0403 30.0S 3.0W 36 228 03m43s
 05581 24 0344 Jun 26 21:56:50 7214 -20476 T -0.8798 1.0405 38.3S 115.5W 28 286 03m32s
 05621 25 0362 Jul 08 05:17:57 7037 -20253 T -0.9480 1.0393 49.2S 128.7E 18 421 03m07s

05662	26	0380	Jul 18	12:43:15	6860	-20030	P	-1.0132	0.9869	68.2S	4.3E	0
05703	27	0398	Jul 29	20:15:04	6682	-19807	P	-1.0735	0.8727	69.2S	121.2W	0
05744	28	0416	Aug 09	03:53:39	6504	-19584	P	-1.1288	0.7677	70.0S	111.1E	0
05785	29	0434	Aug 20	11:40:53	6325	-19361	P	-1.1776	0.6752	70.8S	19.3W	0
05825	30	0452	Aug 30	19:36:11	6147	-19138	P	-1.2202	0.5944	71.3S	152.3W	0
05868	31	0470	Sep 11	03:39:39	5969	-18915	P	-1.2566	0.5255	71.7S	72.3E	0
05911	32	0488	Sep 21	11:52:21	5793	-18692	P	-1.2858	0.4701	71.8S	65.7W	0
05955	33	0506	Oct 02	20:13:20	5616	-18469	P	-1.3089	0.4266	71.7S	154.2E	0
05999	34	0524	Oct 13	04:41:57	5439	-18246	P	-1.3264	0.3939	71.3S	12.4E	0
06044	35	0542	Oct 24	13:17:39	5264	-18023	P	-1.3386	0.3711	70.7S	130.8W	0
06090	36	0560	Nov 03	21:59:47	5089	-17800	P	-1.3461	0.3570	69.9S	85.0E	0
06136	37	0578	Nov 15	06:46:52	4917	-17577	P	-1.3501	0.3496	69.0S	59.8W	0
06182	38	0596	Nov 25	15:36:49	4745	-17354	P	-1.3524	0.3455	68.0S	155.2E	0
06227	39	0614	Dec 07	00:29:40	4575	-17131	P	-1.3529	0.3445	67.0S	10.2E	0
06272	40	0632	Dec 17	09:22:54	4406	-16908	P	-1.3539	0.3426	65.9S	134.4W	0
06317	41	0650	Dec 28	18:14:40	4238	-16685	P	-1.3564	0.3379	64.9S	81.8E	0
06364	42	0669	Jan 08	03:03:18	4073	-16462	P	-1.3617	0.3275	63.9S	60.8W	0
06409	43	0687	Jan 19	11:48:03	3909	-16239	P	-1.3707	0.3102	63.1S	157.9E	0
06453	44	0705	Jan 29	20:27:40	3747	-16016	P	-1.3844	0.2840	62.4S	18.1E	0
06496	45	0723	Feb 10	04:59:52	3588	-15793	P	-1.4042	0.2457	61.8S	119.6W	0
06538	46	0741	Feb 20	13:25:25	3431	-15570	P	-1.4296	0.1966	61.4S	104.5E	0
06580	47	0759	Mar 03	21:42:22	3277	-15347	P	-1.4620	0.1340	61.1S	29.1W	0
06621	48	0777	Mar 14	05:52:01	3125	-15124	Pe	-1.5004	0.0595	61.0S	160.9W	0

SAROS SERIES

72

Saros series 72 contains 83 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

03020	-37	-0727	Aug 16	03:50:07	20636	-33721	Pb	-1.5437	0.0212	62.1S	153.6E	0	
03065	-36	-0709	Aug 27	11:16:26	20344	-33498	P	-1.4930	0.1101	61.5S	31.9E	0	
03109	-35	-0691	Sep 06	18:54:32	20055	-33275	P	-1.4507	0.1844	61.0S	92.7W	0	
03154	-34	-0673	Sep 18	02:41:26	19767	-33052	P	-1.4144	0.2480	60.8S	140.7E	0	
03199	-33	-0655	Sep 28	10:40:10	19482	-32829	P	-1.3865	0.2968	60.6S	11.2E	0	
03244	-32	-0637	Oct 09	18:46:43	19199	-32606	P	-1.3641	0.3361	60.7S	120.3W	0	
03290	-31	-0619	Oct 20	03:02:09	18918	-32383	P	-1.3482	0.3637	60.9S	106.0E	0	
03337	-30	-0601	Oct 31	11:23:47	18639	-32160	P	-1.3365	0.3840	61.3S	29.3W	0	
03384	-29	-0583	Nov 10	19:51:52	18362	-31937	P	-1.3298	0.3957	61.9S	166.4W	0	
03431	-28	-0565	Nov 22	04:22:19	18087	-31714	P	-1.3240	0.4055	62.6S	55.8E	0	
03477	-27	-0547	Dec 02	12:54:50	17814	-31491	P	-1.3193	0.4135	63.4S	82.7W	0	
03522	-26	-0529	Dec 13	21:27:10	17543	-31268	P	-1.3138	0.4228	64.4S	138.4E	0	
03567	-25	-0511	Dec 24	05:58:52	17274	-31045	P	-1.3076	0.4335	65.4S	0.6W	0	
03612	-24	-0492	Jan 04	14:25:59	16982	-30822	P	-1.2968	0.4524	66.5S	139.0W	0	

03656 -23 -0474 Jan 14 22:49:31 16666 -30599 P -1.2825 0.4778 67.5S 82.9E 0
 03700 -22 -0456 Jan 26 07:06:25 16360 -30376 P -1.2621 0.5146 68.6S 54.1W 0
 03743 -21 -0438 Feb 05 15:18:18 16061 -30153 P -1.2368 0.5607 69.6S 169.6E 0
 03787 -20 -0420 Feb 16 23:21:21 15771 -29930 P -1.2039 0.6214 70.4S 35.0E 0
 03829 -19 -0402 Feb 27 07:18:58 15488 -29707 P -1.1656 0.6926 71.1S 98.9W 0
 03871 -18 -0384 Mar 09 15:07:57 15212 -29484 P -1.1195 0.7792 71.6S 129.0E 0
 03912 -17 -0366 Mar 20 22:51:24 14943 -29261 P -1.0682 0.8767 71.8S 2.0W 0
 03951 -16 -0348 Mar 31 06:27:06 14680 -29038 P -1.0096 0.9887 71.8S 131.1W 0
 03991 -15 -0330 Apr 11 13:58:37 14423 -28815 T -0.9468 1.0360 60.1S 65.0E 18 381 02m28s
 04032 -14 -0312 Apr 21 21:24:48 14172 -28592 T -0.8788 1.0438 48.6S 61.6W 28 306 03m20s
 04073 -13 -0294 May 03 04:47:27 13927 -28369 T -0.8072 1.0505 38.4S 178.9E 36 282 04m11s
 04113 -12 -0276 May 13 12:07:52 13687 -28146 T -0.7328 1.0559 29.2S 62.4E 43 270 04m57s
 04153 -11 -0258 May 24 19:27:21 13452 -27923 T -0.6568 1.0605 20.9S 52.5W 49 263 05m37s
 04194 -10 -0240 Jun 04 02:47:32 13221 -27700 T -0.5807 1.0641 13.6S 166.5W 54 258 06m08s
 04235 -09 -0222 Jun 15 10:08:27 12996 -27477 T -0.5047 1.0668 7.1S 80.3E 60 253 06m28s
 04276 -08 -0204 Jun 25 17:33:02 12775 -27254 T -0.4309 1.0686 1.7S 33.1W 64 247 06m36s
 04317 -07 -0186 Jul 07 01:01:07 12558 -27031 T -0.3594 1.0695 2.6N 146.7W 69 242 06m35s
 04360 -06 -0168 Jul 17 08:34:21 12345 -26808 T -0.2917 1.0695 5.7N 99.1E 73 236 06m25s
 04404 -05 -0150 Jul 28 16:13:20 12136 -26585 T -0.2286 1.0689 7.7N 16.2W 77 230 06m11s
 04447 -04 -0132 Aug 07 23:59:55 11931 -26362 T -0.1714 1.0676 8.4N 133.2W 80 224 05m53s
 04490 -03 -0114 Aug 19 07:54:00 11730 -26139 T -0.1203 1.0658 8.0N 108.0E 83 216 05m36s
 04533 -02 -0096 Aug 29 15:55:39 11532 -25916 T -0.0752 1.0636 6.7N 12.8W 86 209 05m18s
 04576 -01 -0078 Sep 10 00:05:45 11337 -25693 T -0.0372 1.0611 4.6N 135.8W 88 201 05m02s
 04621 00 -0060 Sep 20 08:24:07 11146 -25470 T -0.0062 1.0584 1.8N 98.9E 90 192 04m48s
 04666 01 -0042 Oct 01 16:50:13 10957 -25247 T 0.0186 1.0558 1.4S 28.5W 89 184 04m35s
 04712 02 -0024 Oct 12 01:23:20 10770 -25024 T 0.0373 1.0532 4.8S 157.7W 88 176 04m25s
 04758 03 -0006 Oct 23 10:03:04 10587 -24801 T 0.0506 1.0509 8.3S 71.4E 87 169 04m17s
 04803 04 0012 Nov 02 18:48:38 10405 -24578 Tm 0.0590 1.0488 11.6S 60.7W 87 162 04m11s

04849	05	0030	Nov 14	03:37:26	10226 -24355	T	0.0644	1.0473	14.6S	166.6E	86	158	04m08s
04896	06	0048	Nov 24	12:30:09	10048 -24132	T	0.0667	1.0461	17.1S	33.2E	86	154	04m07s
04940	07	0066	Dec 05	21:23:09	9872 -23909	T	0.0684	1.0454	18.8S	100.0W	86	152	04m07s
04984	08	0084	Dec 16	06:16:36	9697 -23686	T	0.0699	1.0451	19.7S	126.9E	86	151	04m10s
05029	09	0102	Dec 27	15:06:16	9524 -23463	T	0.0743	1.0454	19.4S	5.3W	86	152	04m15s
05073	10	0121	Jan 06	23:54:07	9351 -23240	T	0.0802	1.0460	18.2S	137.0W	86	154	04m20s
05117	11	0139	Jan 18	08:35:48	9179 -23017	T	0.0906	1.0469	15.8S	92.4E	85	157	04m27s
05160	12	0157	Jan 28	17:11:51	9008 -22794	T	0.1059	1.0482	12.4S	37.2W	84	161	04m34s
05201	13	0175	Feb 09	01:39:26	8837 -22571	T	0.1278	1.0495	8.0S	165.3W	83	165	04m41s
05242	14	0193	Feb 19	10:00:11	8666 -22348	T	0.1552	1.0509	2.8S	67.9E	81	171	04m47s
05283	15	0211	Mar 02	18:11:38	8495 -22125	T	0.1899	1.0521	3.1N	57.1W	79	176	04m51s
05324	16	0229	Mar 13	02:14:35	8324 -21902	T	0.2312	1.0532	9.6N	179.6E	77	180	04m52s
05365	17	0247	Mar 24	10:08:36	8152 -21679	T	0.2796	1.0538	16.6N	58.4E	74	185	04m50s
05407	18	0265	Apr 03	17:54:54	7980 -21456	T	0.3341	1.0540	24.1N	61.0W	70	189	04m44s
05447	19	0283	Apr 15	01:32:54	7807 -21233	T	0.3951	1.0537	31.8N	178.3W	67	193	04m32s
05487	20	0301	Apr 25	09:04:15	7633 -21010	T	0.4610	1.0526	39.8N	66.3E	62	196	04m16s
05526	21	0319	May 06	16:29:08	7458 -20787	T	0.5318	1.0508	48.0N	46.8W	58	199	03m56s
05566	22	0337	May 16	23:50:04	7283 -20564	T	0.6053	1.0481	56.2N	157.8W	52	201	03m31s
05606	23	0355	May 28	07:05:38	7107 -20341	T	0.6827	1.0446	64.6N	94.5E	47	204	03m04s
05646	24	0373	Jun 07	14:20:16	6930 -20118	T	0.7601	1.0401	72.7N	8.0W	40	208	02m36s
05687	25	0391	Jun 18	21:32:22	6752 -19895	T	0.8390	1.0346	80.3N	94.3W	33	216	02m06s
05728	26	0409	Jun 29	04:46:23	6574 -19672	T	0.9153	1.0279	82.0N	135.1W	23	239	01m35s
05769	27	0427	Jul 10	11:59:29	6396 -19449	T	0.9913	1.0180	69.4N	167.3E	6	576	00m55s
05810	28	0445	Jul 20	19:17:00	6217 -19226	P	1.0629	0.8841	63.3N	56.1E	0		
05851	29	0463	Aug 01	02:36:42	6039 -19003	P	1.1318	0.7553	62.5N	63.8W	0		
05894	30	0481	Aug 11	10:02:04	5862 -18780	P	1.1949	0.6383	61.9N	175.0E	0		
05938	31	0499	Aug 22	17:31:58	5686 -18557	P	1.2532	0.5314	61.4N	52.9E	0		
05982	32	0517	Sep 02	01:09:31	5509 -18334	P	1.3044	0.4388	61.1N	71.0W	0		

06026	33	0535	Sep 13	08:53:31	5333	-18111	P	1.3493	0.3585	60.9N	163.6E	0
06072	34	0553	Sep 23	16:44:18	5158	-17888	P	1.3880	0.2903	60.8N	36.5E	0
06118	35	0571	Oct 05	00:42:13	4985	-17665	P	1.4200	0.2348	60.9N	92.3W	0
06164	36	0589	Oct 15	08:47:11	4812	-17442	P	1.4453	0.1917	61.2N	137.0E	0
06209	37	0607	Oct 26	16:58:21	4642	-17219	P	1.4652	0.1585	61.7N	4.7E	0
06254	38	0625	Nov 06	01:14:00	4472	-16996	P	1.4805	0.1333	62.3N	128.8W	0
06299	39	0643	Nov 17	09:34:13	4304	-16773	P	1.4917	0.1155	63.0N	96.3E	0
06345	40	0661	Nov 27	17:56:51	4138	-16550	P	1.5001	0.1023	63.9N	39.4W	0
06391	41	0679	Dec 09	02:20:02	3973	-16327	P	1.5072	0.0911	64.9N	175.5W	0
06435	42	0697	Dec 19	10:42:19	3811	-16104	P	1.5144	0.0798	65.9N	48.1E	0
06478	43	0715	Dec 30	19:02:01	3651	-15881	P	1.5228	0.0660	67.0N	88.0W	0
06521	44	0734	Jan 10	03:17:02	3493	-15658	P	1.5341	0.0469	68.1N	136.5E	0
06563	45	0752	Jan 21	11:25:25	3337	-15435	Pe	1.5500	0.0200	69.1N	2.1E	0

SAROS SERIES

73

Saros series 73 contains 72 solar eclipses.

NUM.	NUM.	DATE	OF	s	NUM.	TYPE	MAG.	°	°	ALT	WIDTH	DUR.	
										GREATEST	°	km	
ECLIPSE													

03091	-38	-0698	Jul 27	12:52:31	20169	-33363	Pb	1.4732	0.1077	68.0N	123.1W	0
03136	-37	-0680	Aug 06	20:42:19	19881	-33140	P	1.4218	0.2079	69.0N	106.6E	0
03181	-36	-0662	Aug 18	04:38:34	19595	-32917	P	1.3757	0.2972	69.9N	26.0W	0
03226	-35	-0644	Aug 28	12:43:01	19310	-32694	P	1.3365	0.3729	70.6N	161.1W	0
03272	-34	-0626	Sep 08	20:55:06	19028	-32471	P	1.3038	0.4357	71.2N	61.3E	0
03318	-33	-0608	Sep 19	05:15:43	18748	-32248	P	1.2786	0.4838	71.6N	78.9W	0
03365	-32	-0590	Sep 30	13:42:15	18471	-32025	P	1.2586	0.5216	71.7N	139.2E	0
03413	-31	-0572	Oct 10	22:16:56	18195	-31802	P	1.2458	0.5456	71.6N	4.8W	0
03459	-30	-0554	Oct 22	06:56:52	17921	-31579	P	1.2376	0.5609	71.2N	149.9W	0
03504	-29	-0536	Nov 01	15:42:22	17650	-31356	P	1.2343	0.5669	70.6N	64.1E	0
03549	-28	-0518	Nov 13	00:30:08	17380	-31133	P	1.2334	0.5684	69.8N	81.8W	0
03594	-27	-0500	Nov 23	09:20:49	17110	-30910	P	1.2353	0.5650	68.8N	132.1E	0
03639	-26	-0482	Dec 04	18:11:07	16790	-30687	P	1.2373	0.5611	67.8N	13.4W	0
03682	-25	-0464	Dec 15	03:00:05	16480	-30464	P	1.2387	0.5586	66.7N	158.0W	0
03726	-24	-0446	Dec 26	11:45:57	16178	-30241	P	1.2379	0.5601	65.7N	58.7E	0
03770	-23	-0427	Jan 05	20:27:49	15884	-30018	P	1.2343	0.5669	64.7N	83.0W	0
03812	-22	-0409	Jan 17	05:02:42	15598	-29795	P	1.2256	0.5831	63.7N	137.4E	0
03854	-21	-0391	Jan 27	13:30:34	15320	-29572	P	1.2119	0.6086	62.9N	0.2W	0
03896	-20	-0373	Feb 07	21:50:08	15048	-29349	P	1.1920	0.6457	62.2N	135.4W	0
03936	-19	-0355	Feb 18	06:01:40	14783	-29126	P	1.1661	0.6939	61.6N	91.7E	0
03975	-18	-0337	Mar 01	14:02:23	14524	-28903	P	1.1321	0.7573	61.2N	38.4W	0
04016	-17	-0319	Mar 11	21:54:53	14271	-28680	P	1.0922	0.8314	60.9N	166.4W	0
04057	-16	-0301	Mar 23	05:37:13	14023	-28457	P	1.0448	0.9196	60.8N	68.3E	0
04098	-15	-0283	Apr 02	13:11:49	13781	-28234	T	0.9917	1.0166	61.1N	42.5W	6 519 00m59s
04138	-14	-0265	Apr 13	20:36:22	13544	-28011	T	0.9310	1.0201	59.7N	132.9W	21 187 01m16s

04178 -13 -0247 Apr 24 03:55:23 13312 -27788 T 0.8664 1.0211 59.4N 126.5E 30 143 01m23s
 04219 -12 -0229 May 05 11:06:48 13084 -27565 T 0.7965 1.0210 59.2N 26.6E 37 118 01m25s
 04259 -11 -0211 May 15 18:13:53 12861 -27342 T 0.7236 1.0201 58.9N 72.3W 43 99 01m25s
 04300 -10 -0193 May 27 01:16:17 12643 -27119 T 0.6476 1.0182 57.8N 170.2W 49 81 01m20s
 04342 -09 -0175 Jun 06 08:17:11 12429 -26896 T 0.5711 1.0156 55.8N 91.8E 55 65 01m13s
 04386 -08 -0157 Jun 17 15:16:42 12218 -26673 H 0.4943 1.0121 52.7N 7.2W 60 48 01m00s
 04429 -07 -0139 Jun 27 22:15:44 12012 -26450 H 0.4178 1.0081 48.5N 107.6W 65 31 00m42s
 04472 -06 -0121 Jul 09 05:17:01 11809 -26227 H 0.3444 1.0034 43.5N 149.8E 70 12 00m19s
 04515 -05 -0103 Jul 19 12:20:49 11610 -26004 A 0.2740 0.9982 37.8N 45.0E 74 6 00m11s
 04558 -04 -0085 Jul 30 19:29:21 11414 -25781 A 0.2084 0.9926 31.7N 62.1W 78 27 00m46s
 04603 -03 -0067 Aug 10 02:42:07 11221 -25558 A 0.1474 0.9867 25.3N 171.2W 81 47 01m26s
 04648 -02 -0049 Aug 21 10:02:16 11031 -25335 Am 0.0935 0.9807 18.8N 77.2E 85 69 02m10s
 04693 -01 -0031 Aug 31 17:28:31 10844 -25112 A 0.0458 0.9745 12.3N 36.3W 87 91 02m55s
 04740 00 -0013 Sep 12 01:01:55 10659 -24889 A 0.0050 0.9685 5.9N 151.7W 90 113 03m41s
 04785 01 0005 Sep 22 08:42:23 10476 -24666 A -0.0291 0.9626 0.4S 91.0E 88 135 04m25s
 04831 02 0023 Oct 03 16:31:02 10296 -24443 A -0.0558 0.9570 6.3S 28.2W 87 157 05m07s
 04877 03 0041 Oct 14 00:26:01 10118 -24220 A -0.0762 0.9519 11.8S 148.6W 86 177 05m47s
 04922 04 0059 Oct 25 08:26:50 9941 -23997 A -0.0913 0.9472 16.8S 90.0E 85 195 06m23s
 04966 05 0077 Nov 04 16:32:39 9766 -23774 A -0.1015 0.9431 21.1S 32.2W 84 211 06m55s
 05011 06 0095 Nov 16 00:43:03 9592 -23551 A -0.1075 0.9396 24.8S 154.9W 84 225 07m23s
 05056 07 0113 Nov 26 08:54:28 9419 -23328 A -0.1122 0.9369 27.6S 82.7E 83 236 07m44s
 05100 08 0131 Dec 07 17:06:49 9247 -23105 A -0.1155 0.9347 29.6S 39.4W 83 245 07m59s
 05144 09 0149 Dec 18 01:16:52 9075 -22882 A -0.1204 0.9332 30.7S 160.7W 83 251 08m07s
 05186 10 0167 Dec 29 09:25:01 8904 -22659 A -0.1262 0.9324 30.8S 78.7E 83 255 08m08s
 05226 11 0186 Jan 08 17:26:06 8733 -22436 A -0.1376 0.9321 30.3S 40.2W 82 256 08m01s
 05267 12 0204 Jan 20 01:22:31 8562 -22213 A -0.1522 0.9324 29.0S 158.2W 81 256 07m51s
 05308 13 0222 Jan 30 09:09:29 8391 -21990 A -0.1743 0.9331 27.3S 86.0E 80 254 07m37s
 05349 14 0240 Feb 10 16:48:43 8220 -21767 A -0.2021 0.9342 25.2S 28.2W 78 250 07m21s

05390 15 0258 Feb 21 00:16:25 8048 -21544 A -0.2392 0.9355 23.2S 139.8W 76 247 07m06s
 05431 16 0276 Mar 03 07:36:11 7875 -21321 A -0.2822 0.9370 21.2S 110.5E 73 243 06m53s
 05471 17 0294 Mar 14 14:44:43 7702 -21098 A -0.3343 0.9385 19.5S 3.5E 70 240 06m43s
 05510 18 0312 Mar 24 21:43:57 7527 -20875 A -0.3936 0.9401 18.4S 101.3W 67 239 06m36s
 05550 19 0330 Apr 05 04:33:27 7352 -20652 A -0.4603 0.9413 18.1S 156.3E 62 241 06m34s
 05590 20 0348 Apr 15 11:15:44 7176 -20429 A -0.5326 0.9424 18.8S 55.6E 58 247 06m35s
 05630 21 0366 Apr 26 17:50:18 7000 -20206 A -0.6110 0.9430 20.6S 43.3W 52 260 06m38s
 05671 22 0384 May 07 00:18:55 6822 -19983 A -0.6941 0.9432 24.0S 140.9W 46 284 06m42s
 05712 23 0402 May 18 06:43:34 6644 -19760 A -0.7800 0.9428 29.1S 122.1E 39 331 06m44s
 05753 24 0420 May 28 13:05:35 6466 -19537 A -0.8673 0.9415 36.7S 25.5E 30 430 06m38s
 05794 25 0438 Jun 08 19:25:47 6288 -19314 A -0.9558 0.9388 48.9S 70.3W 17 783 06m17s
 05835 26 0456 Jun 19 01:47:00 6109 -19091 P -1.0431 0.8887 65.6S 166.1W 0
 05878 27 0474 Jun 30 08:10:05 5932 -18868 P -1.1285 0.7425 66.6S 87.0E 0
 05921 28 0492 Jul 10 14:37:35 5755 -18645 P -1.2099 0.6032 67.6S 21.4W 0
 05965 29 0510 Jul 21 21:08:35 5579 -18422 P -1.2882 0.4692 68.6S 131.3W 0
 06009 30 0528 Aug 01 03:47:42 5402 -18199 P -1.3595 0.3476 69.5S 116.3E 0
 06054 31 0546 Aug 12 10:33:29 5227 -17976 P -1.4253 0.2357 70.4S 1.6E 0
 06100 32 0564 Aug 22 17:29:17 5053 -17753 P -1.4832 0.1376 71.0S 116.1W 0
 06146 33 0582 Sep 03 00:33:28 4880 -17530 Pe -1.5345 0.0511 71.5S 123.5E 0

SAROS SERIES

Saros series 74 contains 75 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
03300	-34	-0615 Aug 08	17:45:17	18859	-32336	Pb	-1.5409	0.0314	62.5S	57.0W	0		
03347	-33	-0597 Aug 20	00:54:04	18580	-32113	P	-1.4909	0.1203	61.9S	174.5W	0		
03394	-32	-0579 Aug 30	08:09:58	18303	-31890	P	-1.4471	0.1975	61.4S	66.5E	0		
03441	-31	-0561 Sep 10	15:34:01	18029	-31667	P	-1.4101	0.2622	61.0S	54.5W	0		
03486	-30	-0543 Sep 20	23:06:09	17757	-31444	P	-1.3799	0.3148	60.7S	177.3W	0		
03531	-29	-0525 Oct 02	06:46:28	17486	-31221	P	-1.3564	0.3552	60.7S	57.8E	0		
03576	-28	-0507 Oct 12	14:32:48	17218	-30998	P	-1.3381	0.3867	60.8S	68.5W	0		
03621	-27	-0489 Oct 23	22:26:39	16915	-30775	P	-1.3260	0.4072	61.1S	163.1E	0		
03665	-26	-0471 Nov 03	06:24:52	16601	-30552	P	-1.3180	0.4208	61.5S	33.5E	0		
03709	-25	-0453 Nov 14	14:27:24	16296	-30329	P	-1.3134	0.4287	62.1S	97.3W	0		
03752	-24	-0435 Nov 24	22:30:25	15999	-30106	P	-1.3093	0.4356	62.9S	131.5E	0		
03795	-23	-0417 Dec 06	06:34:48	15710	-29883	P	-1.3066	0.4401	63.8S	0.1W	0		
03837	-22	-0399 Dec 16	14:36:52	15429	-29660	P	-1.3022	0.4472	64.7S	131.5W	0		
03879	-21	-0381 Dec 27	22:35:31	15155	-29437	P	-1.2954	0.4584	65.8S	97.6E	0		
03920	-20	-0362 Jan 07	06:28:31	14887	-29214	P	-1.2844	0.4766	66.9S	32.3W	0		
03959	-19	-0344 Jan 18	14:15:11	14625	-28991	P	-1.2682	0.5035	68.0S	161.1W	0		
03999	-18	-0326 Jan 28	21:53:54	14370	-28768	P	-1.2458	0.5408	69.0S	71.5E	0		

04040 -17 -0308 Feb 09 05:23:28 14120 -28545 P -1.2161 0.5904 69.9S 54.2W 0
 04082 -16 -0290 Feb 19 12:44:05 13876 -28322 P -1.1792 0.6525 70.8S 178.3W 0
 04122 -15 -0272 Mar 01 19:55:28 13637 -28099 P -1.1349 0.7275 71.4S 59.4E 0
 04162 -14 -0254 Mar 13 02:56:47 13403 -27876 P -1.0821 0.8173 71.8S 60.8W 0
 04203 -13 -0236 Mar 23 09:49:30 13173 -27653 P -1.0219 0.9204 72.0S 179.0W 0
 04244 -12 -0218 Apr 03 16:34:07 12949 -27430 A -0.9546 0.9326 63.1S 26.3E 17 858 05m40s
 04285 -11 -0200 Apr 13 23:12:36 12729 -27207 A -0.8818 0.9382 50.9S 91.4W 28 483 06m00s
 04326 -10 -0182 Apr 25 05:43:43 12513 -26984 A -0.8023 0.9429 39.9S 161.0E 36 350 06m13s
 04369 -09 -0164 May 05 12:12:03 12301 -26761 A -0.7198 0.9469 29.9S 57.2E 44 279 06m20s
 04412 -08 -0146 May 16 18:36:34 12093 -26538 A -0.6331 0.9504 20.6S 44.1W 51 234 06m22s
 04455 -07 -0128 May 27 01:01:11 11889 -26315 A -0.5459 0.9534 12.3S 144.3W 57 203 06m16s
 04498 -06 -0110 Jun 07 07:24:32 11688 -26092 A -0.4568 0.9557 4.7S 116.8E 63 181 06m05s
 04541 -05 -0092 Jun 17 13:51:37 11491 -25869 A -0.3699 0.9576 1.8N 18.0E 68 166 05m48s
 04586 -04 -0074 Jun 28 20:21:24 11297 -25646 A -0.2842 0.9589 7.3N 80.8W 74 156 05m29s
 04631 -03 -0056 Jul 09 02:56:21 11105 -25423 A -0.2021 0.9599 11.7N 179.9E 78 149 05m09s
 04676 -02 -0038 Jul 20 09:37:47 10917 -25200 A -0.1246 0.9603 14.8N 79.6E 83 145 04m52s
 04722 -01 -0020 Jul 30 16:27:14 10731 -24977 A -0.0529 0.9604 16.6N 22.4W 87 144 04m38s
 04768 00 -0002 Aug 10 23:26:07 10548 -24754 A 0.0118 0.9602 17.3N 126.5W 89 144 04m28s
 04813 01 0016 Aug 21 06:33:33 10367 -24531 A 0.0703 0.9598 16.9N 127.1E 86 146 04m22s
 04859 02 0034 Sep 01 13:52:18 10188 -24308 A 0.1203 0.9593 15.5N 17.6E 83 149 04m20s
 04904 03 0052 Sep 11 21:20:36 10011 -24085 Am 0.1634 0.9588 13.4N 94.6W 81 151 04m20s
 04948 04 0070 Sep 23 05:00:07 9835 -23862 A 0.1978 0.9584 10.8N 150.0E 79 154 04m22s
 04992 05 0088 Oct 03 12:48:46 9661 -23639 A 0.2256 0.9582 7.8N 32.0E 77 155 04m25s
 05037 06 0106 Oct 14 20:48:09 9487 -23416 A 0.2454 0.9583 4.7N 88.9W 76 156 04m29s
 05082 07 0124 Oct 25 04:55:04 9315 -23193 A 0.2599 0.9588 1.6N 148.3E 75 154 04m31s
 05126 08 0142 Nov 05 13:09:35 9143 -22970 A 0.2688 0.9598 1.3S 23.5E 74 151 04m31s
 05169 09 0160 Nov 15 21:29:22 8972 -22747 A 0.2741 0.9614 3.9S 102.5W 74 145 04m27s
 05210 10 0178 Nov 27 05:53:56 8801 -22524 A 0.2758 0.9635 5.9S 130.5E 74 137 04m18s

05251	11	0196	Dec 07	14:19:38	8630 -22301	A	0.2776	0.9662	7.2S	3.3E	74	127	04m02s
05292	12	0214	Dec 18	22:46:04	8459 -22078	A	0.2794	0.9696	7.6S	124.0W	74	114	03m41s
05333	13	0232	Dec 29	07:10:36	8287 -21855	A	0.2833	0.9736	7.0S	109.1E	74	99	03m12s
05374	14	0251	Jan 09	15:33:30	8116 -21632	A	0.2892	0.9781	5.5S	17.4W	73	82	02m38s
05415	15	0269	Jan 19	23:50:15	7943 -21409	A	0.3008	0.9831	2.9S	142.8W	73	63	01m59s
05455	16	0287	Jan 31	08:03:05	7770 -21186	A	0.3163	0.9886	0.7N	92.6E	72	42	01m18s
05495	17	0305	Feb 10	16:07:59	7596 -20963	A	0.3393	0.9944	5.2N	30.6W	70	21	00m37s
05534	18	0323	Feb 22	00:07:59	7422 -20740	H	0.3671	1.0004	10.5N	152.9W	68	2	00m03s
05574	19	0341	Mar 04	07:58:43	7246 -20517	H	0.4033	1.0065	16.6N	86.7E	66	25	00m40s
05614	20	0359	Mar 15	15:44:41	7070 -20294	H	0.4444	1.0126	23.2N	32.8W	63	48	01m13s
05655	21	0377	Mar 25	23:22:23	6893 -20071	T	0.4932	1.0184	30.4N	150.6W	60	72	01m41s
05696	22	0395	Apr 06	06:55:08	6715 -19848	T	0.5470	1.0240	38.1N	92.8E	57	97	02m04s
05737	23	0413	Apr 16	14:20:56	6537 -19625	T	0.6075	1.0291	46.3N	22.2W	52	124	02m20s
05778	24	0431	Apr 27	21:43:54	6358 -19402	T	0.6712	1.0337	54.7N	136.4W	48	153	02m31s
05818	25	0449	May 08	05:02:39	6180 -19179	T	0.7391	1.0374	63.7N	110.5E	42	187	02m35s
05860	26	0467	May 19	12:19:15	6002 -18956	T	0.8094	1.0403	73.1N	2.2W	36	231	02m33s
05903	27	0485	May 29	19:34:46	5825 -18733	T	0.8814	1.0420	83.4N	118.0W	28	301	02m26s
05947	28	0503	Jun 10	02:51:04	5649 -18510	T	0.9535	1.0420	83.7N	27.9W	17	483	02m12s
05991	29	0521	Jun 20	10:08:44	5472 -18287	P	1.0248	0.9670	65.8N	143.0W	0		
06035	30	0539	Jul 01	17:28:39	5296 -18064	P	1.0948	0.8345	64.9N	96.2E	0		
06082	31	0557	Jul 12	00:53:11	5121 -17841	P	1.1616	0.7075	64.0N	25.4W	0		
06128	32	0575	Jul 23	08:23:00	4948 -17618	P	1.2247	0.5871	63.2N	148.1W	0		
06174	33	0593	Aug 02	15:58:20	4776 -17395	P	1.2839	0.4743	62.5N	88.2E	0		
06219	34	0611	Aug 13	23:41:16	4606 -17172	P	1.3374	0.3723	61.9N	37.3W	0		
06264	35	0629	Aug 24	07:31:59	4437 -16949	P	1.3849	0.2818	61.5N	164.6W	0		
06309	36	0647	Sep 04	15:31:41	4269 -16726	P	1.4260	0.2039	61.2N	65.9E	0		
06356	37	0665	Sep 14	23:38:28	4103 -16503	P	1.4618	0.1363	61.0N	65.2W	0		
06401	38	0683	Sep 26	07:54:43	3939 -16280	P	1.4907	0.0822	61.0N	161.3E	0		

06445 39 0701 Oct 06 16:18:38 3777 -16057 P 1.5138 0.0391 61.2N 25.9E 0

06488 40 0719 Oct 18 00:50:25 3617 -15834 Pe 1.5311 0.0071 61.5N 111.5W 0

SAROS SERIES

75

Saros series 75 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
03328	-36	-0604 Jul 07	17:02:10	18690	-32201	Pb	1.5494	0.0066	66.4N	172.7W	0		
03375	-35	-0586 Jul 18	23:59:19	18412	-31978	P	1.4763	0.1354	67.4N	71.2E	0		
03423	-34	-0568 Jul 29	07:03:55	18137	-31755	P	1.4081	0.2559	68.4N	47.4W	0		
03469	-33	-0550 Aug 09	14:17:48	17864	-31532	P	1.3463	0.3651	69.4N	168.8W	0		
03514	-32	-0532 Aug 19	21:41:26	17593	-31309	P	1.2913	0.4624	70.2N	66.7E	0		
03559	-31	-0514 Aug 31	05:16:01	17323	-31086	P	1.2443	0.5456	71.0N	61.2W	0		
03604	-30	-0496 Sep 10	13:00:50	17041	-30863	P	1.2046	0.6161	71.5N	167.8E	0		
03648	-29	-0478 Sep 21	20:55:38	16724	-30640	P	1.1720	0.6736	71.8N	33.7E	0		

03692	-28	-0460	Oct 02	05:00:36	16415	-30417	P	1.1470	0.7180	71.9N	103.1W	0
03735	-27	-0442	Oct 13	13:14:46	16115	-30194	P	1.1285	0.7510	71.6N	117.9E	0
03779	-26	-0424	Oct 23	21:36:01	15824	-29971	P	1.1150	0.7752	71.2N	22.5W	0
03821	-25	-0406	Nov 04	06:04:15	15539	-29748	P	1.1064	0.7909	70.5N	164.2W	0
03863	-24	-0388	Nov 14	14:37:03	15262	-29525	P	1.1007	0.8017	69.6N	53.7E	0
03905	-23	-0370	Nov 25	23:13:25	14992	-29302	P	1.0974	0.8084	68.6N	88.6W	0
03944	-22	-0352	Dec 06	07:49:53	14728	-29079	P	1.0934	0.8165	67.5N	129.7E	0
03983	-21	-0334	Dec 17	16:27:19	14470	-28856	P	1.0896	0.8246	66.4N	11.6W	0
04024	-20	-0316	Dec 28	01:02:05	14218	-28633	P	1.0827	0.8386	65.4N	151.7W	0
04065	-19	-0297	Jan 08	09:33:14	13972	-28410	P	1.0724	0.8588	64.3N	69.6E	0
04106	-18	-0279	Jan 18	17:58:54	13730	-28187	P	1.0570	0.8888	63.4N	67.4W	0
04146	-17	-0261	Jan 30	02:19:05	13494	-27964	P	1.0365	0.9286	62.6N	157.3E	0
04187	-16	-0243	Feb 09	10:32:49	13263	-27741	P	1.0098	0.9803	61.9N	23.8E	0
04228	-15	-0225	Feb 20	18:38:42	13037	-27518	T	0.9760	1.0159	54.7N	88.8W	12 255 01m06s
04269	-14	-0207	Mar 03	02:37:59	12815	-27295	T	0.9359	1.0242	50.5N	154.2E	20 230 01m42s
04310	-13	-0189	Mar 14	10:29:38	12597	-27072	T	0.8889	1.0320	48.3N	37.7E	27 231 02m15s
04352	-12	-0171	Mar 24	18:14:50	12384	-26849	T	0.8357	1.0394	47.2N	77.2W	33 235 02m45s
04396	-11	-0153	Apr 05	01:53:17	12175	-26626	T	0.7761	1.0463	46.8N	170.1E	39 240 03m13s
04438	-10	-0135	Apr 15	09:27:08	11969	-26403	T	0.7119	1.0526	46.8N	58.9E	44 244 03m39s
04481	-09	-0117	Apr 26	16:56:27	11767	-26180	T	0.6433	1.0583	47.0N	50.5W	50 248 04m04s
04524	-08	-0099	May 07	00:22:02	11568	-25957	T	0.5708	1.0633	46.9N	158.3W	55 251 04m28s
04567	-07	-0081	May 18	07:45:45	11373	-25734	T	0.4964	1.0674	46.2N	94.6E	60 253 04m52s
04612	-06	-0063	May 28	15:08:22	11181	-25511	T	0.4207	1.0707	44.8N	12.2W	65 253 05m15s
04657	-05	-0045	Jun 08	22:31:40	10991	-25288	T	0.3449	1.0731	42.5N	119.5W	70 253 05m37s
04703	-04	-0027	Jun 19	05:55:09	10804	-25065	T	0.2690	1.0746	39.2N	132.4E	74 251 05m57s
04750	-03	-0009	Jun 30	13:22:34	10620	-24842	T	0.1963	1.0753	35.1N	22.4E	78 249 06m14s
04795	-02	0009	Jul 10	20:53:09	10438	-24619	T	0.1261	1.0750	30.2N	89.4W	83 245 06m25s
04841	-01	0027	Jul 22	04:29:07	10258	-24396	T	0.0603	1.0741	24.8N	156.5E	86 241 06m31s

04887 00 0045 Aug 01 12:10:30 10080 -24173 Tm -0.0011 1.0724 18.9N 40.2E 90 235 06m30s

04931 01 0063 Aug 12 19:59:34 9904 -23950 T -0.0563 1.0702 12.8N 78.6W 87 229 06m22s

04975 02 0081 Aug 23 03:55:59 9729 -23727 T -0.1052 1.0675 6.6N 160.4E 84 221 06m08s

05020 03 0099 Sep 03 11:59:15 9556 -23504 T -0.1483 1.0645 0.3N 37.3E 81 213 05m50s

05064 04 0117 Sep 13 20:11:32 9383 -23281 T -0.1840 1.0612 5.9S 88.0W 79 204 05m29s

05108 05 0135 Sep 25 04:31:21 9211 -23058 T -0.2133 1.0578 11.9S 144.9E 78 195 05m08s

05152 06 0153 Oct 05 12:59:47 9039 -22835 T -0.2355 1.0545 17.6S 15.9E 76 185 04m47s

05194 07 0171 Oct 16 21:33:43 8868 -22612 T -0.2529 1.0514 22.9S 114.1W 75 176 04m27s

05235 08 0189 Oct 27 06:15:28 8697 -22389 T -0.2636 1.0485 27.7S 114.7E 75 167 04m10s

05276 09 0207 Nov 07 15:01:09 8526 -22166 T -0.2711 1.0460 31.9S 16.8W 74 159 03m55s

05317 10 0225 Nov 17 23:51:08 8355 -21943 T -0.2749 1.0440 35.4S 148.6W 74 153 03m43s

05358 11 0243 Nov 29 08:42:30 8184 -21720 T -0.2774 1.0424 37.9S 80.1E 74 148 03m33s

05399 12 0261 Dec 09 17:35:29 8011 -21497 T -0.2785 1.0413 39.5S 51.1W 74 144 03m26s

05439 13 0279 Dec 21 02:26:27 7839 -21274 T -0.2811 1.0406 40.1S 178.6E 73 142 03m21s

05479 14 0297 Dec 31 11:15:04 7665 -21051 T -0.2855 1.0404 39.7S 48.9E 73 141 03m19s

05518 15 0316 Jan 11 19:59:24 7491 -20828 T -0.2935 1.0406 38.5S 80.1W 73 142 03m18s

05558 16 0334 Jan 22 04:39:12 7315 -20605 T -0.3052 1.0410 36.5S 151.7E 72 144 03m19s

05598 17 0352 Feb 02 13:10:52 7139 -20382 T -0.3236 1.0417 34.2S 24.9E 71 147 03m21s

05638 18 0370 Feb 12 21:36:02 6962 -20159 T -0.3470 1.0425 31.6S 100.7W 70 151 03m23s

05680 19 0388 Feb 24 05:52:00 6785 -19936 T -0.3781 1.0432 29.0S 135.6E 68 155 03m27s

05721 20 0406 Mar 06 14:00:59 6607 -19713 T -0.4147 1.0438 26.6S 13.3E 65 159 03m31s

05762 21 0424 Mar 16 21:58:57 6429 -19490 T -0.4601 1.0441 24.8S 106.4W 62 164 03m34s

05803 22 0442 Mar 28 05:50:14 6250 -19267 T -0.5107 1.0440 23.5S 135.4E 59 169 03m37s

05844 23 0460 Apr 07 13:31:13 6072 -19044 T -0.5691 1.0434 23.2S 19.7E 55 173 03m38s

05887 24 0478 Apr 18 21:06:05 5895 -18821 T -0.6320 1.0421 23.9S 94.6W 51 178 03m36s

05930 25 0496 Apr 29 04:31:53 5718 -18598 T -0.7019 1.0400 26.0S 153.3E 45 185 03m29s

05974 26 0514 May 10 11:53:33 5541 -18375 T -0.7744 1.0371 29.6S 42.0E 39 194 03m16s

06018 27 0532 May 20 19:08:48 5365 -18152 T -0.8510 1.0330 35.4S 68.0W 31 210 02m53s

06064 28 0550 Jun 01 02:21:04 5190 -17929 T -0.9293 1.0276 44.5S 177.2W 21 254 02m18s

06110 29 0568 Jun 11 09:30:04 5016 -17706 P -1.0092 0.9867 65.0S 79.7E 0

06156 30 0586 Jun 22 16:38:32 4844 -17483 P -1.0883 0.8380 66.0S 38.3W 0

06201 31 0604 Jul 02 23:46:58 4673 -17260 P -1.1665 0.6918 67.0S 156.6W 0

06246 32 0622 Jul 14 06:56:26 4503 -17037 P -1.2426 0.5507 68.0S 84.3E 0

06291 33 0640 Jul 24 14:09:19 4335 -16814 P -1.3147 0.4185 69.0S 36.2W 0

06337 34 0658 Aug 04 21:25:50 4168 -16591 P -1.3825 0.2955 69.9S 158.2W 0

06383 35 0676 Aug 15 04:47:42 4004 -16368 P -1.4450 0.1836 70.7S 77.9E 0

06427 36 0694 Aug 26 12:15:04 3841 -16145 Pe -1.5020 0.0832 71.3S 47.9W 0

SAROS SERIES

76

Saros series 76 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

03404 -38 -0575 Jun 18 02:27:50 18245 -31843 Pb -1.5192 0.0156 66.7S 143.8W 0

03451 -37 -0557 Jun 29 09:56:05 17971 -31620 P -1.4503 0.1502 65.7S 92.4E 0
 03496 -36 -0539 Jul 09 17:29:47 17699 -31397 P -1.3859 0.2759 64.8S 32.3W 0
 03541 -35 -0521 Jul 21 01:06:17 17429 -31174 P -1.3239 0.3964 63.9S 157.4W 0
 03586 -34 -0503 Jul 31 08:50:27 17162 -30951 P -1.2681 0.5044 63.0S 76.0E 0
 03631 -33 -0485 Aug 11 16:39:41 16848 -30728 P -1.2165 0.6036 62.3S 51.9W 0
 03674 -32 -0467 Aug 22 00:36:58 16536 -30505 P -1.1716 0.6889 61.7S 178.4E 0
 03718 -31 -0449 Sep 02 08:41:00 16233 -30282 P -1.1326 0.7625 61.2S 47.2E 0
 03762 -30 -0431 Sep 12 16:53:58 15938 -30059 P -1.1012 0.8209 60.9S 86.0W 0
 03804 -29 -0413 Sep 24 01:14:10 15650 -29836 P -1.0760 0.8671 60.8S 139.0E 0
 03846 -28 -0395 Oct 04 09:41:25 15371 -29613 P -1.0569 0.9014 60.8S 2.4E 0
 03888 -27 -0377 Oct 15 18:15:21 15098 -29390 P -1.0438 0.9244 60.9S 135.9W 0
 03929 -26 -0359 Oct 26 02:55:14 14831 -29167 P -1.0362 0.9369 61.3S 84.3E 0
 03968 -25 -0341 Nov 06 11:39:10 14571 -28944 P -1.0323 0.9426 61.8S 56.7W 0
 04008 -24 -0323 Nov 16 20:25:59 14317 -28721 P -1.0315 0.9427 62.4S 161.5E 0
 04049 -23 -0305 Nov 28 05:14:09 14068 -28498 P -1.0324 0.9400 63.2S 19.2E 0
 04090 -22 -0287 Dec 08 14:02:31 13825 -28275 P -1.0341 0.9359 64.1S 123.4W 0
 04130 -21 -0269 Dec 19 22:47:56 13587 -28052 P -1.0343 0.9349 65.1S 94.3E 0
 04170 -20 -0251 Dec 30 07:30:44 13354 -27829 P -1.0329 0.9369 66.2S 47.6W 0
 04211 -19 -0232 Jan 10 16:07:48 13126 -27606 P -1.0278 0.9461 67.3S 171.4E 0
 04252 -18 -0214 Jan 21 00:38:49 12902 -27383 P -1.0182 0.9634 68.3S 31.4E 0
 04293 -17 -0196 Feb 01 09:01:17 12683 -27160 P -1.0024 0.9924 69.3S 107.1W 0
 04335 -16 -0178 Feb 11 17:16:19 12468 -26937 T -0.9813 1.0078 76.5S 87.2E 10 153 00m26s
 04378 -15 -0160 Feb 23 01:22:05 12257 -26714 T -0.9536 1.0099 74.2S 77.5W 17 117 00m36s
 04421 -14 -0142 Mar 05 09:17:45 12050 -26491 T -0.9180 1.0118 67.5S 138.9E 23 103 00m46s
 04464 -13 -0124 Mar 15 17:04:11 11846 -26268 T -0.8757 1.0131 59.5S 8.0E 28 93 00m56s
 04507 -12 -0106 Mar 27 00:41:08 11646 -26045 T -0.8261 1.0142 51.0S 116.0W 34 86 01m07s
 04550 -11 -0088 Apr 06 08:09:48 11450 -25822 T -0.7707 1.0148 42.5S 124.2E 39 79 01m16s
 04594 -10 -0070 Apr 17 15:29:01 11256 -25599 T -0.7084 1.0149 34.0S 8.1E 45 72 01m22s

04639 -09 -0052 Apr 27 22:41:58 11066 -25376 T -0.6416 1.0143 25.7S 105.4W 50 63 01m25s
04684 -08 -0034 May 09 05:47:57 10878 -25153 H -0.5697 1.0131 17.7S 143.6E 55 55 01m23s
04731 -07 -0016 May 19 12:49:09 10693 -24930 H -0.4948 1.0112 10.1S 34.6E 60 44 01m15s
04777 -06 0002 May 30 19:45:43 10510 -24707 H -0.4168 1.0087 3.1S 72.5W 65 33 01m00s
04823 -05 0020 Jun 10 02:40:35 10329 -24484 H -0.3383 1.0055 3.2N 178.4W 70 20 00m38s
04869 -04 0038 Jun 21 09:34:16 10151 -24261 H -0.2595 1.0016 8.7N 76.8E 75 6 00m11s
04914 -03 0056 Jul 01 16:27:58 9974 -24038 A -0.1816 0.9972 13.2N 27.3W 80 10 00m20s
04958 -02 0074 Jul 12 23:23:58 9798 -23815 Am -0.1064 0.9922 16.7N 131.3W 84 27 00m52s
05002 -01 0092 Jul 23 06:23:12 9624 -23592 A -0.0345 0.9868 19.0N 124.4E 88 46 01m26s
05047 00 0110 Aug 03 13:27:32 9451 -23369 A 0.0323 0.9812 20.1N 19.1E 88 67 02m00s
05091 01 0128 Aug 13 20:36:30 9279 -23146 A 0.0943 0.9752 20.3N 87.4W 84 89 02m35s
05135 02 0146 Aug 25 03:52:42 9107 -22923 A 0.1497 0.9692 19.4N 164.1E 81 112 03m11s
05177 03 0164 Sep 04 11:15:41 8936 -22700 A 0.1987 0.9632 17.8N 53.6E 78 136 03m48s
05218 04 0182 Sep 15 18:45:44 8765 -22477 A 0.2409 0.9574 15.6N 59.1W 76 159 04m27s
05259 05 0200 Sep 26 02:23:46 8594 -22254 A 0.2758 0.9517 13.0N 174.1W 74 183 05m08s
05300 06 0218 Oct 07 10:08:56 8423 -22031 A 0.3038 0.9465 10.2N 68.7E 72 205 05m51s
05342 07 0236 Oct 17 18:01:50 8251 -21808 A 0.3248 0.9417 7.4N 50.6W 71 226 06m37s
05383 08 0254 Oct 29 01:58:53 8079 -21585 A 0.3418 0.9374 4.7N 171.1W 70 246 07m23s
05424 09 0272 Nov 08 10:02:12 7907 -21362 A 0.3528 0.9337 2.2N 66.8E 69 262 08m10s
05464 10 0290 Nov 19 18:07:55 7734 -21139 A 0.3609 0.9307 0.3N 55.8W 69 276 08m56s
05503 11 0308 Nov 30 02:16:27 7560 -20916 A 0.3664 0.9284 1.1S 179.1W 69 288 09m37s
05542 12 0326 Dec 11 10:23:27 7385 -20693 A 0.3724 0.9267 1.7S 58.0E 68 296 10m11s
05582 13 0344 Dec 21 18:30:19 7209 -20470 A 0.3783 0.9258 1.5S 64.8W 68 302 10m34s
05622 14 0363 Jan 02 02:32:58 7032 -20247 A 0.3870 0.9254 0.3S 173.3E 67 305 10m44s
05663 15 0381 Jan 12 10:30:55 6855 -20024 A 0.3991 0.9256 1.9N 52.3E 66 305 10m40s
05704 16 0399 Jan 23 18:21:42 6677 -19801 A 0.4165 0.9263 5.2N 67.1W 65 304 10m25s
05746 17 0417 Feb 03 02:05:28 6499 -19578 A 0.4393 0.9274 9.4N 174.8E 64 302 09m59s
05787 18 0435 Feb 14 09:39:34 6320 -19355 A 0.4697 0.9289 14.5N 58.7E 62 300 09m26s

05827	19	0453	Feb 24	17:04:40	6142 -19132	A	0.5070	0.9305	20.6N	55.6W	59	299	08m48s
05870	20	0471	Mar 08	00:19:40	5964 -18909	A	0.5522	0.9323	27.4N	167.8W	56	301	08m07s
05913	21	0489	Mar 18	07:26:06	5788 -18686	A	0.6038	0.9340	35.0N	81.6E	53	306	07m25s
05957	22	0507	Mar 29	14:20:55	5611 -18463	A	0.6647	0.9356	43.3N	26.8W	48	318	06m42s
06001	23	0525	Apr 08	21:08:45	5434 -18240	A	0.7309	0.9369	52.4N	134.3W	43	342	06m01s
06046	24	0543	Apr 20	03:47:29	5259 -18017	A	0.8044	0.9378	62.4N	118.1E	36	389	05m23s
06092	25	0561	Apr 30	10:21:38	5085 -17794	A	0.8811	0.9379	73.1N	3.9E	28	491	04m48s
06138	26	0579	May 11	16:48:05	4912 -17571	A	0.9638	0.9365	80.3N	163.3W	15	926	04m15s
06184	27	0597	May 21	23:13:25	4740 -17348	P	1.0472	0.8815	68.5N	46.0E	0		
06229	28	0615	Jun 02	05:35:00	4570 -17125	P	1.1337	0.7339	67.4N	61.3W	0		
06274	29	0633	Jun 12	11:57:22	4401 -16902	P	1.2191	0.5877	66.4N	168.2W	0		
06319	30	0651	Jun 23	18:19:23	4234 -16679	P	1.3048	0.4409	65.4N	85.3E	0		
06366	31	0669	Jul 04	00:46:07	4068 -16456	P	1.3865	0.3008	64.5N	21.9W	0		
06411	32	0687	Jul 15	07:16:25	3905 -16233	P	1.4655	0.1655	63.7N	129.7W	0		
06455	33	0705	Jul 25	13:52:37	3743 -16010	Pe	1.5397	0.0384	62.9N	121.2E	0		

SAROS SERIES

77

Saros series 77 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST ° km

ECLIPSE

03658	-33	-0474	Jul 11	14:09:39	16658	-30593	Pb	1.4887	0.1193	66.8N	142.4W	0	
03702	-32	-0456	Jul 21	20:57:12	16351	-30370	P	1.4221	0.2366	67.8N	103.5E	0	
03745	-31	-0438	Aug 02	03:48:23	16053	-30147	P	1.3586	0.3475	68.8N	12.0W	0	
03788	-30	-0420	Aug 12	10:47:49	15763	-29924	P	1.3022	0.4450	69.7N	130.1W	0	
03830	-29	-0402	Aug 23	17:53:19	15480	-29701	P	1.2510	0.5327	70.5N	109.7E	0	
03872	-28	-0384	Sep 03	01:08:00	15204	-29478	P	1.2073	0.6067	71.2N	13.4W	0	
03913	-27	-0366	Sep 14	08:29:47	14936	-29255	P	1.1697	0.6697	71.7N	138.7W	0	
03952	-26	-0348	Sep 24	16:01:22	14673	-29032	P	1.1402	0.7185	71.9N	93.1E	0	
03992	-25	-0330	Oct 05	23:39:58	14416	-28809	P	1.1169	0.7567	71.8N	36.8W	0	
04033	-24	-0312	Oct 16	07:25:31	14166	-28586	P	1.0994	0.7848	71.5N	168.4W	0	
04074	-23	-0294	Oct 27	15:17:24	13920	-28363	P	1.0873	0.8041	71.0N	58.9E	0	
04114	-22	-0276	Nov 06	23:14:33	13680	-28140	P	1.0793	0.8166	70.2N	74.6W	0	
04154	-21	-0258	Nov 18	07:14:57	13445	-27917	P	1.0744	0.8243	69.3N	151.8E	0	
04195	-20	-0240	Nov 28	15:16:22	13215	-27694	P	1.0702	0.8310	68.2N	18.7E	0	
04236	-19	-0222	Dec 09	23:18:20	12990	-27471	P	1.0664	0.8371	67.1N	114.0W	0	
04277	-18	-0204	Dec 20	07:18:35	12769	-27248	P	1.0610	0.8464	66.0N	114.4E	0	
04318	-17	-0186	Dec 31	15:14:40	12552	-27025	P	1.0521	0.8615	65.0N	15.7W	0	
04361	-16	-0167	Jan 10	23:05:42	12340	-26802	P	1.0389	0.8841	64.0N	144.1W	0	
04405	-15	-0149	Jan 22	06:49:55	12131	-26579	A+	1.0200	0.9166	63.1N	89.6E	0	
04448	-14	-0131	Feb 01	14:27:14	11926	-26356	An	0.9951	0.9121	59.7N	29.0W	4	- 07m45s
04491	-13	-0113	Feb 12	21:54:51	11725	-26133	A	0.9620	0.9179	51.6N	135.4W	15	1135 07m43s
04534	-12	-0095	Feb 23	05:14:37	11527	-25910	A	0.9222	0.9229	47.7N	115.3E	22	732 07m19s

04577	-11	-0077	Mar 06	12:24:40	11332	-25687	A	0.8741	0.9279	45.2N	8.4E	29	539	06m50s
04622	-10	-0059	Mar 16	19:25:48	11140	-25464	A	0.8184	0.9329	43.7N	96.0W	35	422	06m19s
04667	-09	-0041	Mar 28	02:18:20	10952	-25241	A	0.7551	0.9377	42.9N	162.3E	41	343	05m50s
04713	-08	-0023	Apr 07	09:03:45	10765	-25018	A	0.6856	0.9425	42.5N	62.9E	46	285	05m23s
04759	-07	-0005	Apr 18	15:43:14	10582	-24795	A	0.6104	0.9470	42.3N	34.4W	52	242	05m00s
04804	-06	0013	Apr 28	22:16:18	10400	-24572	A	0.5293	0.9512	41.8N	129.6W	58	208	04m41s
04850	-05	0031	May 10	04:46:51	10221	-24349	A	0.4456	0.9549	41.0N	136.1E	63	183	04m26s
04897	-04	0049	May 20	11:14:25	10043	-24126	A	0.3588	0.9583	39.4N	42.6E	69	162	04m15s
04941	-03	0067	May 31	17:42:22	9867	-23903	A	0.2714	0.9612	37.0N	51.4W	74	146	04m08s
04985	-02	0085	Jun 11	00:09:59	9693	-23680	A	0.1828	0.9636	33.6N	145.9W	79	134	04m04s
05030	-01	0103	Jun 22	06:42:09	9519	-23457	A	0.0971	0.9654	29.4N	117.6E	84	125	04m02s
05074	00	0121	Jul 02	13:17:36	9346	-23234	A	0.0136	0.9668	24.3N	19.4E	89	120	04m02s
05118	01	0139	Jul 13	19:59:21	9175	-23011	A	-0.0655	0.9677	18.7N	81.3W	86	116	04m02s
05161	02	0157	Jul 24	02:47:35	9003	-22788	Am	-0.1401	0.9682	12.6N	175.5E	82	115	04m01s
05202	03	0175	Aug 04	09:44:59	8832	-22565	A	-0.2079	0.9684	6.2N	69.4E	78	116	03m59s
05243	04	0193	Aug 14	16:50:56	8661	-22342	A	-0.2692	0.9683	0.4S	39.4W	74	118	03m56s
05284	05	0211	Aug 26	00:06:18	8490	-22119	A	-0.3234	0.9679	7.0S	150.9W	71	122	03m51s
05325	06	0229	Sep 05	07:32:08	8319	-21896	A	-0.3696	0.9676	13.6S	94.8E	68	125	03m46s
05366	07	0247	Sep 16	15:08:27	8147	-21673	A	-0.4079	0.9671	20.0S	22.1W	66	129	03m40s
05408	08	0265	Sep 26	22:54:42	7975	-21450	A	-0.4387	0.9669	26.2S	141.2W	64	132	03m32s
05448	09	0283	Oct 08	06:51:00	7802	-21227	A	-0.4620	0.9669	32.1S	97.6E	62	134	03m24s
05488	10	0301	Oct 18	14:56:19	7628	-21004	A	-0.4787	0.9672	37.5S	25.1W	61	134	03m15s
05527	11	0319	Oct 29	23:10:06	7454	-20781	A	-0.4892	0.9679	42.3S	149.0W	60	132	03m04s
05567	12	0337	Nov 09	07:29:17	7278	-20558	A	-0.4961	0.9691	46.6S	87.0E	60	128	02m52s
05607	13	0355	Nov 20	15:55:14	7102	-20335	A	-0.4984	0.9708	49.9S	37.4W	60	121	02m38s
05647	14	0373	Dec 01	00:23:43	6925	-20112	A	-0.4996	0.9732	52.3S	161.1W	60	111	02m22s
05688	15	0391	Dec 12	08:55:08	6747	-19889	A	-0.4991	0.9761	53.5S	75.4E	60	99	02m04s
05729	16	0409	Dec 22	17:24:51	6569	-19666	A	-0.5009	0.9797	53.6S	47.3W	60	84	01m44s

05770	17	0428	Jan 03	01:54:51	6391	-19443	A	-0.5033	0.9838	52.5S	170.4W	60	66	01m22s
05811	18	0446	Jan 13	10:20:25	6213	-19220	A	-0.5105	0.9884	50.6S	66.9E	59	47	00m58s
05853	19	0464	Jan 24	18:42:06	6035	-18997	A	-0.5215	0.9935	48.0S	55.9W	58	27	00m32s
05896	20	0482	Feb 04	02:57:02	5857	-18774	A	-0.5389	0.9989	45.2S	178.0W	57	4	00m05s
05940	21	0500	Feb 15	11:06:27	5681	-18551	H	-0.5616	1.0046	42.2S	60.6E	56	19	00m22s
05984	22	0518	Feb 25	19:08:25	5504	-18328	H	-0.5912	1.0104	39.6S	59.6W	54	44	00m50s
06028	23	0536	Mar 08	03:03:15	5328	-18105	T	-0.6276	1.0162	37.4S	178.3W	51	70	01m17s
06074	24	0554	Mar 19	10:50:48	5153	-17882	T	-0.6708	1.0217	35.9S	64.5E	48	98	01m44s
06120	25	0572	Mar 29	18:32:10	4980	-17659	T	-0.7198	1.0270	35.3S	51.2W	44	129	02m10s
06166	26	0590	Apr 10	02:06:40	4808	-17436	T	-0.7752	1.0318	36.0S	165.2W	39	166	02m33s
06211	27	0608	Apr 20	09:36:37	4637	-17213	T	-0.8352	1.0358	38.3S	82.0E	33	214	02m51s
06256	28	0626	May 01	17:01:46	4468	-16990	T	-0.8997	1.0389	42.9S	29.1W	26	294	03m01s
06301	29	0644	May 12	00:25:07	4300	-16767	T	-0.9666	1.0400	51.6S	137.6W	14	531	02m56s
06347	30	0662	May 23	07:44:42	4133	-16544	P	-1.0371	0.9440	63.5S	118.9E	0		
06393	31	0680	Jun 02	15:04:59	3969	-16321	P	-1.1075	0.8109	64.4S	1.5W	0		
06437	32	0698	Jun 13	22:24:22	3807	-16098	P	-1.1789	0.6750	65.3S	122.0W	0		
06480	33	0716	Jun 24	05:46:51	3646	-15875	P	-1.2484	0.5420	66.3S	116.4E	0		
06523	34	0734	Jul 05	13:10:19	3489	-15652	P	-1.3172	0.4098	67.3S	5.9W	0		
06565	35	0752	Jul 15	20:39:39	3333	-15429	P	-1.3816	0.2859	68.3S	130.1W	0		
06606	36	0770	Jul 27	04:12:53	3181	-15206	P	-1.4428	0.1682	69.2S	104.3E	0		
06647	37	0788	Aug 06	11:52:52	3031	-14983	Pe	-1.4989	0.0607	70.0S	23.7W	0		

SAROS SERIES

Saros series 78 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

03684	-36	-0463	Jun 09	14:14:46	16471	-30458	Pb	-1.5420	0.0174	67.4S	39.2E	0	
03728	-35	-0445	Jun 20	20:59:47	16170	-30235	P	-1.4589	0.1643	66.4S	74.1W	0	
03772	-34	-0427	Jul 01	03:49:51	15877	-30012	P	-1.3784	0.3073	65.4S	171.8E	0	
03814	-33	-0409	Jul 12	10:46:02	15591	-29789	P	-1.3014	0.4445	64.4S	56.6E	0	
03856	-32	-0391	Jul 22	17:50:17	15313	-29566	P	-1.2296	0.5730	63.5S	60.3W	0	
03898	-31	-0373	Aug 03	01:03:18	15041	-29343	P	-1.1635	0.6914	62.7S	179.1W	0	
03937	-30	-0355	Aug 13	08:24:46	14776	-29120	P	-1.1031	0.7997	62.0S	60.3E	0	
03976	-29	-0337	Aug 24	15:56:49	14517	-28897	P	-1.0503	0.8944	61.5S	62.7W	0	
04017	-28	-0319	Sep 03	23:38:48	14264	-28674	P	-1.0048	0.9758	61.0S	172.0E	0	
04058	-27	-0301	Sep 15	07:31:43	14016	-28451	A	-0.9674	0.9823	55.7S	69.1E	14	248 01m16s
04099	-26	-0283	Sep 25	15:33:09	13774	-28228	A	-0.9361	0.9842	54.6S	49.6W	20	157 01m08s
04139	-25	-0265	Oct 06	23:44:55	13537	-28005	A	-0.9125	0.9855	55.6S	173.7W	24	123 01m01s
04179	-24	-0247	Oct 17	08:04:31	13305	-27782	A	-0.8945	0.9867	57.8S	59.4E	26	103 00m55s
04220	-23	-0229	Oct 28	16:31:34	13078	-27559	A	-0.8822	0.9882	61.0S	70.0W	28	88 00m47s
04260	-22	-0211	Nov 08	01:04:24	12856	-27336	A	-0.8739	0.9898	64.8S	159.3E	29	74 00m40s
04301	-21	-0193	Nov 19	09:41:51	12637	-27113	A	-0.8689	0.9919	68.9S	27.9E	29	58 00m31s
04343	-20	-0175	Nov 29	18:22:07	12423	-26890	A	-0.8654	0.9944	73.3S	102.5W	30	39 00m21s

04387 -19 -0157 Dec 11 03:02:37 12213 -26667 A -0.8616 0.9976 77.4S 131.6E 30 17 00m09s
04430 -18 -0139 Dec 21 11:43:23 12006 -26444 H -0.8574 1.0012 80.8S 15.2E 31 8 00m05s
04473 -17 -0120 Jan 01 20:21:20 11804 -26221 H -0.8509 1.0056 81.9S 86.0W 31 37 00m21s
04516 -16 -0102 Jan 12 04:55:26 11604 -25998 T -0.8403 1.0104 79.5S 170.3E 32 67 00m39s
04559 -15 -0084 Jan 23 13:23:46 11409 -25775 T -0.8246 1.0158 74.8S 53.0E 34 97 01m01s
04604 -14 -0066 Feb 02 21:46:36 11216 -25552 T -0.8039 1.0217 69.1S 71.0W 36 125 01m26s
04649 -13 -0048 Feb 14 06:02:38 11026 -25329 T -0.7773 1.0279 62.7S 163.1E 39 150 01m54s
04694 -12 -0030 Feb 24 14:10:39 10839 -25106 T -0.7435 1.0343 55.7S 37.6E 42 172 02m27s
04741 -11 -0012 Mar 06 22:11:44 10654 -24883 T -0.7036 1.0407 48.4S 86.9W 45 191 03m03s
04786 -10 0006 Mar 18 06:05:10 10472 -24660 T -0.6566 1.0470 40.8S 150.3E 49 206 03m42s
04832 -09 0024 Mar 28 13:52:19 10291 -24437 T -0.6039 1.0531 33.0S 29.0E 53 219 04m24s
04878 -08 0042 Apr 08 21:32:29 10113 -24214 T -0.5449 1.0588 25.1S 90.4W 57 229 05m05s
04923 -07 0060 Apr 19 05:08:12 9936 -23991 T -0.4815 1.0640 17.3S 151.7E 61 238 05m45s
04967 -06 0078 Apr 30 12:39:31 9761 -23768 T -0.4136 1.0685 9.7S 35.2E 66 244 06m19s
05012 -05 0096 May 10 20:07:02 9587 -23545 T -0.3421 1.0723 2.3S 79.8W 70 250 06m47s
05057 -04 0114 May 22 03:32:43 9414 -23322 T -0.2684 1.0753 4.6N 166.2E 74 253 07m06s
05101 -03 0132 Jun 01 10:57:16 9242 -23099 T -0.1932 1.0775 10.9N 53.3E 79 255 07m14s
05145 -02 0150 Jun 12 18:23:03 9071 -22876 T -0.1187 1.0787 16.5N 59.3W 83 256 07m13s
05187 -01 0168 Jun 23 01:48:53 8900 -22653 T -0.0441 1.0792 21.3N 171.0W 88 256 07m03s
05227 00 0186 Jul 04 09:18:54 8729 -22430 Tm 0.0275 1.0787 25.0N 77.0E 88 254 06m47s
05268 01 0204 Jul 14 16:51:47 8558 -22207 T 0.0968 1.0774 27.6N 35.2W 84 252 06m27s
05309 02 0222 Jul 26 00:30:26 8387 -21984 T 0.1612 1.0754 29.0N 148.5W 81 248 06m06s
05350 03 0240 Aug 05 08:13:15 8215 -21761 T 0.2221 1.0728 29.4N 97.2E 77 242 05m45s
05391 04 0258 Aug 16 16:04:16 8043 -21538 T 0.2761 1.0696 28.7N 19.4W 74 235 05m25s
05432 05 0276 Aug 27 00:01:24 7870 -21315 T 0.3249 1.0660 27.3N 137.9W 71 227 05m06s
05472 06 0294 Sep 07 08:06:29 7697 -21092 T 0.3671 1.0621 25.2N 101.0E 68 218 04m48s
05511 07 0312 Sep 17 16:18:56 7523 -20869 T 0.4032 1.0581 22.8N 22.5W 66 207 04m33s
05551 08 0330 Sep 29 00:40:17 7348 -20646 T 0.4313 1.0540 20.0N 148.8W 64 196 04m19s

05591	09	0348	Oct 09	09:08:38	7172	-20423	T	0.4540	1.0501	17.2N	82.8E	63	185	04m07s
05631	10	0366	Oct 20	17:43:30	6995	-20200	T	0.4710	1.0464	14.4N	47.5W	62	173	03m56s
05672	11	0384	Oct 31	02:24:17	6818	-19977	T	0.4831	1.0431	11.9N	179.4W	61	163	03m47s
05713	12	0402	Nov 11	11:10:32	6640	-19754	T	0.4904	1.0401	9.6N	47.2E	61	153	03m39s
05754	13	0420	Nov 21	19:59:16	6461	-19531	T	0.4956	1.0377	7.9N	86.8W	60	145	03m33s
05795	14	0438	Dec 03	04:50:38	6283	-19308	T	0.4982	1.0357	6.7N	138.5E	60	138	03m27s
05836	15	0456	Dec 13	13:41:28	6105	-19085	T	0.5010	1.0342	6.3N	4.0E	60	133	03m23s
05879	16	0474	Dec 24	22:31:52	5927	-18862	T	0.5039	1.0332	6.7N	130.4W	60	129	03m20s
05922	17	0493	Jan 04	07:17:22	5751	-18639	T	0.5104	1.0326	8.1N	96.3E	59	128	03m16s
05966	18	0511	Jan 15	16:00:05	5574	-18416	T	0.5189	1.0323	10.3N	36.4W	59	128	03m14s
06011	19	0529	Jan 26	00:35:32	5397	-18193	T	0.5327	1.0323	13.6N	167.6W	58	129	03m10s
06056	20	0547	Feb 06	09:04:44	5222	-17970	T	0.5516	1.0325	17.7N	62.5E	56	131	03m07s
06102	21	0565	Feb 16	17:24:37	5048	-17747	T	0.5777	1.0327	22.8N	65.5W	55	134	03m02s
06148	22	0583	Feb 28	01:37:28	4876	-17524	T	0.6092	1.0329	28.7N	167.8E	52	139	02m55s
06193	23	0601	Mar 10	09:40:34	4704	-17301	T	0.6483	1.0327	35.3N	43.1E	49	144	02m47s
06238	24	0619	Mar 21	17:34:36	4534	-17078	T	0.6944	1.0323	42.8N	80.0W	46	150	02m36s
06283	25	0637	Apr 01	01:19:52	4366	-16855	T	0.7473	1.0312	50.9N	158.3E	41	158	02m21s
06329	26	0655	Apr 12	08:56:58	4199	-16632	T	0.8065	1.0296	59.8N	36.8E	36	169	02m05s
06375	27	0673	Apr 22	16:26:17	4034	-16409	T	0.8714	1.0270	69.6N	88.0W	29	188	01m44s
06420	28	0691	May 03	23:48:12	3870	-16186	T	0.9415	1.0229	78.9N	123.0E	19	238	01m20s
06464	29	0709	May 14	07:04:35	3709	-15963	P	1.0154	0.9736	69.1N	68.7W	0		
06506	30	0727	May 25	14:15:57	3551	-15740	P	1.0925	0.8295	68.1N	171.2E	0		
06548	31	0745	Jun 04	21:22:42	3394	-15517	P	1.1724	0.6809	67.1N	52.9E	0		
06590	32	0763	Jun 16	04:27:29	3241	-15294	P	1.2526	0.5326	66.1N	64.5W	0		
06631	33	0781	Jun 26	11:30:45	3090	-15071	P	1.3330	0.3849	65.1N	178.9E	0		
06672	34	0799	Jul 07	18:35:08	2942	-14848	P	1.4112	0.2426	64.2N	62.4E	0		
06713	35	0817	Jul 18	01:39:41	2798	-14625	Pe	1.4880	0.1042	63.4N	53.8W	0		

SAROS SERIES

79

Saros series 79 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

03754	-37	-0434	May 21	00:03:26	15991	-30100	Pb	1.5128	0.0279	62.7N	112.6E	0	
03797	-36	-0416	May 31	07:28:25	15703	-29877	P	1.4411	0.1676	63.4N	9.2W	0	
03839	-35	-0398	Jun 11	14:54:03	15422	-29654	P	1.3697	0.3067	64.3N	131.3W	0	
03881	-34	-0380	Jun 21	22:20:47	15147	-29431	P	1.2994	0.4435	65.2N	106.0E	0	
03922	-33	-0362	Jul 03	05:50:34	14880	-29208	P	1.2318	0.5745	66.1N	17.8W	0	
03961	-32	-0344	Jul 13	13:23:45	14618	-28985	P	1.1671	0.6993	67.1N	142.9W	0	
04001	-31	-0326	Jul 24	21:01:18	14363	-28762	P	1.1063	0.8155	68.1N	90.5E	0	
04042	-30	-0308	Aug 04	04:44:56	14113	-28539	P	1.0511	0.9201	69.1N	38.1W	0	
04083	-29	-0290	Aug 15	12:34:54	13869	-28316	T+	1.0017	1.0127	70.0N	168.9W	0	
04123	-28	-0272	Aug 25	20:31:42	13630	-28093	T	0.9583	1.0435	75.2N	3.3E	16	525 02m25s
04163	-27	-0254	Sep 06	04:36:03	13396	-27870	T	0.9216	1.0404	68.8N	146.4W	22	353 02m27s

04204	-26	-0236	Sep 16	12:48:23	13167	-27647	T	0.8919	1.0366	62.0N	77.2E	26	272	02m24s
04245	-25	-0218	Sep 27	21:08:11	12943	-27424	T	0.8691	1.0324	55.8N	56.1W	29	220	02m16s
04286	-24	-0200	Oct 08	05:34:03	12723	-27201	T	0.8517	1.0281	50.4N	171.0E	31	181	02m06s
04327	-23	-0182	Oct 19	14:07:02	12507	-26978	T	0.8407	1.0239	45.8N	37.3E	32	149	01m53s
04370	-22	-0164	Oct 29	22:45:19	12295	-26755	T	0.8343	1.0199	41.9N	97.1W	33	123	01m39s
04413	-21	-0146	Nov 10	07:27:50	12087	-26532	T	0.8320	1.0163	38.9N	127.7E	33	101	01m25s
04456	-20	-0128	Nov 20	16:12:27	11883	-26309	T	0.8319	1.0131	36.5N	7.8W	33	81	01m10s
04499	-19	-0110	Dec 02	00:58:31	11683	-26086	T	0.8335	1.0104	34.8N	143.6W	33	65	00m58s
04542	-18	-0092	Dec 12	09:44:07	11485	-25863	H	0.8354	1.0081	33.7N	80.7E	33	51	00m46s
04587	-17	-0074	Dec 23	18:26:24	11291	-25640	H	0.8350	1.0066	32.9N	54.2W	33	41	00m37s
04632	-16	-0055	Jan 03	03:05:23	11100	-25417	H	0.8326	1.0054	32.5N	171.8E	33	34	00m31s
04677	-15	-0037	Jan 14	11:38:03	10912	-25194	H	0.8256	1.0048	32.3N	39.6E	34	30	00m27s
04723	-14	-0019	Jan 24	20:04:24	10727	-24971	H	0.8142	1.0047	32.2N	90.7W	35	27	00m26s
04769	-13	-0001	Feb 05	04:21:20	10543	-24748	H	0.7956	1.0049	32.2N	141.9E	37	27	00m26s
04814	-12	0017	Feb 15	12:30:45	10362	-24525	H	0.7717	1.0053	32.4N	16.8E	39	28	00m28s
04860	-11	0035	Feb 26	20:29:54	10183	-24302	H	0.7398	1.0059	32.8N	105.0W	42	30	00m31s
04905	-10	0053	Mar 09	04:19:20	10006	-24079	H	0.7006	1.0065	33.4N	136.3E	45	31	00m33s
04949	-09	0071	Mar 20	11:58:48	9830	-23856	H	0.6541	1.0069	34.1N	20.8E	49	31	00m35s
04993	-08	0089	Mar 30	19:29:18	9656	-23633	H	0.6008	1.0071	35.0N	91.8W	53	30	00m36s
05038	-07	0107	Apr 11	02:51:12	9483	-23410	H	0.5410	1.0069	35.8N	158.6E	57	28	00m35s
05083	-06	0125	Apr 21	10:04:01	9310	-23187	H	0.4745	1.0063	36.3N	51.8E	61	24	00m32s
05127	-05	0143	May 02	17:10:28	9138	-22964	H	0.4035	1.0051	36.4N	52.7W	66	19	00m27s
05170	-04	0161	May 13	00:10:12	8967	-22741	H	0.3280	1.0034	35.8N	155.3W	71	12	00m18s
05211	-03	0179	May 24	07:05:09	8796	-22518	H	0.2493	1.0011	34.4N	103.3E	75	4	00m06s
05252	-02	0197	Jun 03	13:56:11	8625	-22295	Am	0.1683	0.9981	31.9N	2.7E	80	7	00m11s
05293	-01	0215	Jun 14	20:45:22	8454	-22072	A	0.0867	0.9946	28.5N	98.1W	85	19	00m34s
05334	00	0233	Jun 25	03:34:11	8283	-21849	A	0.0061	0.9905	24.1N	160.5E	90	34	01m04s
05375	01	0251	Jul 06	10:22:43	8111	-21626	A	-0.0738	0.9859	19.0N	58.3E	86	50	01m40s

05416	02	0269	Jul 16	17:14:24	7939	-21403	A	-0.1498	0.9808	13.2N	45.5W	81	69	02m21s
05456	03	0287	Jul 28	00:08:38	7765	-21180	A	-0.2228	0.9754	6.9N	150.7W	77	90	03m04s
05496	04	0305	Aug 07	07:08:56	7592	-20957	A	-0.2898	0.9697	0.2N	102.0E	73	114	03m48s
05535	05	0323	Aug 18	14:13:22	7417	-20734	A	-0.3525	0.9638	6.7S	6.8W	69	139	04m29s
05575	06	0341	Aug 28	21:26:32	7241	-20511	A	-0.4068	0.9579	13.5S	118.1W	66	167	05m06s
05615	07	0359	Sep 09	04:45:34	7065	-20288	A	-0.4555	0.9520	20.4S	128.9E	63	196	05m38s
05656	08	0377	Sep 19	12:13:48	6888	-20065	A	-0.4959	0.9464	27.1S	13.8E	60	225	06m05s
05697	09	0395	Sep 30	19:48:39	6710	-19842	A	-0.5302	0.9411	33.6S	102.8W	58	255	06m27s
05738	10	0413	Oct 11	03:32:32	6532	-19619	A	-0.5566	0.9362	39.7S	139.0E	56	284	06m44s
05779	11	0431	Oct 22	11:22:11	6353	-19396	A	-0.5773	0.9318	45.4S	20.1E	54	311	06m58s
05819	12	0449	Nov 01	19:17:57	6175	-19173	A	-0.5925	0.9280	50.6S	99.0W	53	335	07m09s
05861	13	0467	Nov 13	03:18:02	5997	-18950	A	-0.6035	0.9248	55.1S	142.5E	53	356	07m17s
05904	14	0485	Nov 23	11:22:19	5820	-18727	A	-0.6109	0.9222	58.6S	24.9E	52	372	07m23s
05948	15	0503	Dec 04	19:27:10	5644	-18504	A	-0.6172	0.9204	61.1S	90.9W	52	384	07m27s
05992	16	0521	Dec 15	03:32:14	5467	-18281	A	-0.6230	0.9193	62.2S	154.8E	51	393	07m28s
06037	17	0539	Dec 26	11:34:40	5291	-18058	A	-0.6305	0.9188	62.0S	41.4E	51	398	07m26s
06084	18	0558	Jan 05	19:34:45	5117	-17835	A	-0.6398	0.9189	60.5S	72.3W	50	400	07m23s
06130	19	0576	Jan 17	03:27:40	4944	-17612	A	-0.6547	0.9196	58.4S	174.5E	49	402	07m17s
06176	20	0594	Jan 27	11:15:35	4772	-17389	A	-0.6735	0.9207	55.7S	60.9E	47	403	07m10s
06221	21	0612	Feb 07	18:54:14	4601	-17166	A	-0.6997	0.9221	53.0S	51.4W	45	407	07m02s
06266	22	0630	Feb 18	02:26:01	4432	-16943	A	-0.7313	0.9239	50.5S	162.9W	43	413	06m53s
06311	23	0648	Feb 29	09:46:24	4265	-16720	A	-0.7722	0.9257	48.8S	88.3E	39	430	06m44s
06358	24	0666	Mar 11	16:59:40	4099	-16497	A	-0.8187	0.9275	47.9S	18.8W	35	461	06m34s
06403	25	0684	Mar 22	00:02:14	3935	-16274	A	-0.8738	0.9290	48.6S	122.4W	29	531	06m23s
06447	26	0702	Apr 02	06:56:41	3773	-16051	A	-0.9353	0.9299	51.7S	138.2E	20	725	06m09s
06490	27	0720	Apr 12	13:42:10	3613	-15828	A-	-1.0037	0.9531	61.2S	60.5E	0		
06532	28	0738	Apr 23	20:21:34	3456	-15605	P	-1.0767	0.8301	61.7S	48.8W	0		
06574	29	0756	May 04	02:54:59	3301	-15382	P	-1.1544	0.6982	62.3S	156.8W	0		

06615 30 0774 May 15 09:22:59 3149 -15159 P -1.2361 0.5588 63.0S 96.4E 0

06656 31 0792 May 25 15:48:34 3000 -14936 P -1.3193 0.4161 63.8S 10.0W 0

06697 32 0810 Jun 05 22:12:29 2855 -14713 P -1.4034 0.2714 64.7S 116.3W 0

06738 33 0828 Jun 16 04:36:44 2712 -14490 Pe -1.4870 0.1273 65.7S 137.0E 0

SAROS SERIES

80

Saros series 80 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

03985 -33 -0333 Jun 13 11:20:58 14463 -28850 Pb -1.4808 0.1318 67.0S 70.1E 0

04026 -32 -0315 Jun 23 17:55:20 14211 -28627 P -1.4037 0.2677 66.0S 40.2W 0

04067 -31 -0297 Jul 05 00:30:09 13965 -28404 P -1.3270 0.4017 65.0S 150.2W 0

04107 -30 -0279 Jul 15 07:09:25 13724 -28181 P -1.2541 0.5282 64.1S 99.1E 0

04147 -29 -0261 Jul 26 13:52:50 13488 -27958 P -1.1846 0.6477 63.2S 12.3W 0

04188 -28 -0243 Aug 05 20:41:50 13257 -27735 P -1.1196 0.7583 62.5S 124.7W 0

04229 -27 -0225 Aug 17 03:38:08 13031 -27512 P -1.0606 0.8575 61.8S 121.2E 0
 04270 -26 -0207 Aug 27 10:42:23 12809 -27289 A- -1.0082 0.9449 61.3S 5.3E 0
 04311 -25 -0189 Sep 07 17:55:21 12592 -27066 A -0.9629 0.9257 54.1S 87.3W 15 1028 06m21s
 04353 -24 -0171 Sep 18 01:16:16 12378 -26843 A -0.9241 0.9233 51.8S 164.7E 22 739 06m40s
 04397 -23 -0153 Sep 29 08:46:34 12169 -26620 A -0.8929 0.9205 52.1S 51.8E 26 651 06m53s
 04439 -22 -0135 Oct 09 16:24:33 11963 -26397 A -0.8680 0.9177 53.7S 63.8W 29 614 07m02s
 04482 -21 -0117 Oct 21 00:09:43 11761 -26174 A -0.8491 0.9153 56.4S 178.5E 32 599 07m08s
 04525 -20 -0099 Oct 31 08:01:17 11563 -25951 A -0.8354 0.9132 59.8S 59.2E 33 594 07m11s
 04568 -19 -0081 Nov 11 15:58:12 11368 -25728 A -0.8266 0.9117 63.7S 60.8W 34 595 07m12s
 04613 -18 -0063 Nov 21 23:58:15 11175 -25505 A -0.8201 0.9108 67.8S 179.9E 35 595 07m12s
 04658 -17 -0045 Dec 03 07:59:17 10986 -25282 A -0.8143 0.9105 71.7S 63.3E 35 592 07m10s
 04704 -16 -0027 Dec 13 16:00:18 10799 -25059 A -0.8087 0.9109 74.9S 48.1W 36 583 07m08s
 04751 -15 -0009 Dec 24 23:59:49 10615 -24836 A -0.8021 0.9119 76.6S 152.8W 36 568 07m05s
 04796 -14 0010 Jan 04 07:54:31 10433 -24613 A -0.7914 0.9138 75.7S 106.1E 37 542 07m03s
 04842 -13 0028 Jan 15 15:44:31 10254 -24390 A -0.7769 0.9162 72.5S 0.9E 39 509 07m01s
 04888 -12 0046 Jan 25 23:27:16 10076 -24167 A -0.7561 0.9194 67.6S 109.2W 41 469 06m59s
 04932 -11 0064 Feb 06 07:03:55 9899 -23944 A -0.7300 0.9230 61.7S 137.8E 43 426 06m57s
 04976 -10 0082 Feb 16 14:30:25 9725 -23721 A -0.6954 0.9272 55.0S 24.7E 46 380 06m55s
 05021 -09 0100 Feb 27 21:50:10 9551 -23498 A -0.6548 0.9316 47.8S 88.1W 49 336 06m52s
 05065 -08 0118 Mar 10 04:59:55 9378 -23275 A -0.6055 0.9363 40.1S 160.9E 53 295 06m47s
 05109 -07 0136 Mar 20 12:02:35 9206 -23052 A -0.5499 0.9411 32.2S 51.3E 56 259 06m38s
 05153 -06 0154 Mar 31 18:56:08 9035 -22829 A -0.4860 0.9460 24.0S 56.0W 61 226 06m25s
 05195 -05 0172 Apr 11 01:44:29 8864 -22606 A -0.4172 0.9506 15.8S 162.0W 65 198 06m07s
 05236 -04 0190 Apr 22 08:26:19 8693 -22383 A -0.3424 0.9551 7.7S 94.0E 70 174 05m44s
 05277 -03 0208 May 02 15:03:13 8522 -22160 A -0.2628 0.9593 0.4N 8.4W 75 153 05m17s
 05318 -02 0226 May 13 21:37:07 8351 -21937 A -0.1799 0.9631 8.1N 109.4W 80 136 04m47s
 05359 -01 0244 May 24 04:09:35 8179 -21714 A -0.0948 0.9665 15.4N 150.6E 85 121 04m16s
 05400 00 0262 Jun 04 10:42:17 8007 -21491 A -0.0093 0.9694 22.1N 51.4E 90 110 03m45s

05440	01	0280	Jun 14	17:15:49	7834	-21268	A	0.0764	0.9718	28.0N	47.0W	85	102	03m18s
05480	02	0298	Jun 25	23:53:31	7660	-21045	Am	0.1595	0.9736	32.9N	145.4W	81	96	02m55s
05519	03	0316	Jul 06	06:35:51	7486	-20822	A	0.2400	0.9750	36.7N	115.9E	76	92	02m37s
05559	04	0334	Jul 17	13:23:32	7311	-20599	A	0.3168	0.9759	39.4N	16.7E	71	91	02m23s
05599	05	0352	Jul 27	20:18:57	7135	-20376	A	0.3881	0.9763	40.7N	84.2W	67	91	02m15s
05639	06	0370	Aug 08	03:22:48	6958	-20153	A	0.4533	0.9765	41.0N	172.6E	63	94	02m09s
05681	07	0388	Aug 18	10:36:49	6780	-19930	A	0.5112	0.9763	40.3N	66.3E	59	98	02m08s
05722	08	0406	Aug 29	17:59:08	6602	-19707	A	0.5632	0.9759	39.0N	42.9W	56	103	02m08s
05763	09	0424	Sep 09	01:33:22	6424	-19484	A	0.6062	0.9755	37.1N	156.0W	52	108	02m10s
05804	10	0442	Sep 20	09:16:50	6245	-19261	A	0.6424	0.9751	35.0N	87.6E	50	114	02m14s
05845	11	0460	Sep 30	17:11:26	6067	-19038	A	0.6702	0.9749	32.8N	32.4W	48	118	02m18s
05888	12	0478	Oct 12	01:13:46	5890	-18815	A	0.6924	0.9748	30.7N	154.9W	46	121	02m21s
05931	13	0496	Oct 22	09:26:26	5714	-18592	A	0.7070	0.9752	28.5N	79.5E	45	122	02m23s
05975	14	0514	Nov 02	17:45:19	5537	-18369	A	0.7173	0.9760	26.7N	48.1W	44	120	02m23s
06019	15	0532	Nov 13	02:11:04	5360	-18146	A	0.7224	0.9774	25.0N	177.6W	44	115	02m19s
06065	16	0550	Nov 24	10:41:00	5185	-17923	A	0.7249	0.9793	23.7N	51.8E	43	106	02m11s
06111	17	0568	Dec 04	19:15:00	5012	-17700	A	0.7245	0.9818	22.9N	79.9W	43	93	01m57s
06158	18	0586	Dec 16	03:49:22	4839	-17477	A	0.7247	0.9848	22.7N	148.3E	43	78	01m38s
06203	19	0604	Dec 26	12:23:39	4668	-17254	A	0.7257	0.9884	23.3N	16.6E	43	59	01m14s
06248	20	0623	Jan 06	20:55:51	4499	-17031	A	0.7292	0.9926	24.7N	114.7W	43	38	00m47s
06293	21	0641	Jan 17	05:25:38	4330	-16808	A	0.7350	0.9972	27.0N	114.5E	42	15	00m17s
06339	22	0659	Jan 28	13:49:17	4164	-16585	H	0.7468	1.0021	30.3N	15.0W	41	11	00m12s
06385	23	0677	Feb 07	22:08:16	3999	-16362	H	0.7632	1.0073	34.4N	143.7W	40	39	00m40s
06429	24	0695	Feb 19	06:19:39	3836	-16139	T	0.7865	1.0126	39.6N	88.8E	38	70	01m05s
06472	25	0713	Mar 01	14:25:35	3676	-15916	T	0.8151	1.0179	45.7N	38.0W	35	105	01m27s
06515	26	0731	Mar 12	22:22:19	3517	-15693	T	0.8516	1.0229	52.7N	164.2W	31	148	01m43s
06557	27	0749	Mar 23	06:13:53	3362	-15470	T	0.8932	1.0275	60.6N	68.0E	26	208	01m53s
06599	28	0767	Apr 03	13:57:12	3209	-15247	T	0.9422	1.0311	69.2N	67.0W	19	319	01m55s

06640 29 0785 Apr 13 21:35:47 3059 -15024 Tn 0.9956 1.0317 72.8N 113.4E 3 - 01m40s

06681 30 0803 Apr 25 05:07:36 2912 -14801 P 1.0553 0.9074 70.5N 21.3W 0

06722 31 0821 May 05 12:36:38 2768 -14578 P 1.1177 0.7903 69.7N 146.6W 0

06762 32 0839 May 16 20:01:39 2628 -14355 P 1.1841 0.6646 68.7N 89.6E 0

06802 33 0857 May 27 03:24:35 2492 -14132 P 1.2525 0.5338 67.8N 33.1W 0

06842 34 0875 Jun 07 10:46:55 2360 -13909 P 1.3221 0.4002 66.8N 155.1W 0

06882 35 0893 Jun 17 18:09:48 2231 -13686 P 1.3917 0.2658 65.8N 83.2E 0

06922 36 0911 Jun 29 01:34:54 2107 -13463 P 1.4599 0.1340 64.9N 38.6W 0

06962 37 0929 Jul 09 09:02:03 1988 -13240 Pe 1.5267 0.0049 64.0N 160.7W 0

SAROS SERIES

81

Saros series 81 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

04010 -35 -0322 May 12 11:41:16 14310 -28715 Pb 1.5329 0.0338 62.1N 62.2W 0

04051	-34	-0304	May 22	18:26:38	14062	-28492	P	1.4496	0.1804	62.8N	173.7W	0		
04092	-33	-0286	Jun 03	01:10:51	13818	-28269	P	1.3641	0.3323	63.6N	74.9E	0		
04132	-32	-0268	Jun 13	07:59:41	13581	-28046	P	1.2811	0.4807	64.5N	37.9W	0		
04172	-31	-0250	Jun 24	14:50:42	13348	-27823	P	1.1987	0.6289	65.4N	151.6W	0		
04213	-30	-0232	Jul 04	21:48:29	13120	-27600	P	1.1203	0.7704	66.4N	92.7E	0		
04253	-29	-0214	Jul 16	04:51:12	12896	-27377	P	1.0448	0.9072	67.4N	24.7W	0		
04294	-28	-0196	Jul 26	12:03:26	12677	-27154	A	0.9758	0.9909	79.3N	163.0W	12	157	00m31s
04336	-27	-0178	Aug 06	19:23:28	12462	-26931	A	0.9123	0.9949	79.2N	1.3W	24	44	00m19s
04379	-26	-0160	Aug 17	02:53:04	12251	-26708	A	0.8557	0.9973	70.2N	137.1W	31	18	00m11s
04422	-25	-0142	Aug 28	10:32:25	12044	-26485	A	0.8060	0.9988	61.7N	99.0E	36	7	00m05s
04465	-24	-0124	Sep 07	18:22:16	11841	-26262	A	0.7642	0.9999	54.1N	24.4W	40	1	00m00s
04508	-23	-0106	Sep 19	02:21:57	11641	-26039	H	0.7298	1.0006	47.1N	149.0W	43	3	00m03s
04551	-22	-0088	Sep 29	10:30:23	11444	-25816	H	0.7020	1.0013	40.8N	84.7E	45	6	00m07s
04595	-21	-0070	Oct 10	18:48:28	11251	-25593	H	0.6815	1.0020	35.2N	43.5W	47	9	00m11s
04640	-20	-0052	Oct 21	03:14:09	11060	-25370	H	0.6666	1.0028	30.3N	173.4W	48	13	00m16s
04685	-19	-0034	Nov 01	11:46:46	10873	-25147	H	0.6569	1.0040	26.1N	55.2E	49	18	00m23s
04732	-18	-0016	Nov 11	20:24:21	10688	-24924	H	0.6508	1.0054	22.7N	77.2W	49	25	00m33s
04778	-17	0002	Nov 23	05:06:15	10505	-24701	H	0.6476	1.0074	20.0N	149.5E	49	33	00m45s
04824	-16	0020	Dec 03	13:49:49	10324	-24478	H	0.6453	1.0098	18.0N	15.9E	50	44	01m01s
04870	-15	0038	Dec 14	22:33:40	10146	-24255	H	0.6427	1.0128	16.7N	117.8W	50	57	01m19s
04915	-14	0056	Dec 25	07:16:33	9969	-24032	T	0.6386	1.0163	15.9N	108.9E	50	73	01m40s
04959	-13	0075	Jan 05	15:57:02	9793	-23809	T	0.6317	1.0204	15.6N	23.7W	51	89	02m01s
05003	-12	0093	Jan 16	00:32:32	9619	-23586	T	0.6202	1.0250	15.7N	155.0W	52	107	02m25s
05048	-11	0111	Jan 27	09:03:03	9446	-23363	T	0.6041	1.0299	16.3N	75.2E	53	126	02m47s
05092	-10	0129	Feb 06	17:27:01	9274	-23140	T	0.5820	1.0354	17.1N	52.8W	54	144	03m10s
05136	-09	0147	Feb 18	01:45:03	9102	-22917	T	0.5541	1.0409	18.2N	179.0W	56	162	03m32s
05178	-08	0165	Feb 28	09:54:09	8931	-22694	T	0.5184	1.0467	19.4N	57.5E	59	179	03m54s
05219	-07	0183	Mar 11	17:57:10	8760	-22471	T	0.4771	1.0523	20.9N	64.2W	61	195	04m14s

05260	-06	0201	Mar 22	01:51:41	8589	-22248	T	0.4284	1.0578	22.3N	176.7E	65	209	04m35s
05301	-05	0219	Apr 02	09:40:55	8418	-22025	T	0.3748	1.0629	23.7N	59.3E	68	221	04m56s
05343	-04	0237	Apr 12	17:21:56	8247	-21802	T	0.3138	1.0677	24.8N	55.4W	72	232	05m18s
05384	-03	0255	Apr 24	00:59:20	8075	-21579	T	0.2494	1.0718	25.5N	169.0W	75	241	05m39s
05425	-02	0273	May 04	08:30:52	7902	-21356	T	0.1800	1.0753	25.5N	79.3E	79	248	06m02s
05465	-01	0291	May 15	16:00:04	7729	-21133	T	0.1081	1.0781	24.7N	31.8W	84	254	06m24s
05504	00	0309	May 25	23:26:08	7555	-20910	T	0.0334	1.0799	23.1N	142.3W	88	258	06m45s
05543	01	0327	Jun 06	06:52:21	7380	-20687	Tm	-0.0413	1.0810	20.5N	106.9E	88	261	07m03s
05583	02	0345	Jun 16	14:18:48	7204	-20464	T	-0.1162	1.0811	17.0N	4.5W	83	263	07m17s
05623	03	0363	Jun 27	21:46:29	7028	-20241	T	-0.1899	1.0804	12.7N	116.8W	79	264	07m24s
05664	04	0381	Jul 08	05:17:09	6850	-20018	T	-0.2612	1.0788	7.6N	129.4E	75	264	07m22s
05705	05	0399	Jul 19	12:51:41	6672	-19795	T	-0.3290	1.0764	2.0N	13.9E	71	262	07m11s
05747	06	0417	Jul 29	20:31:08	6494	-19572	T	-0.3928	1.0734	4.1S	103.3W	67	259	06m50s
05788	07	0435	Aug 10	04:16:06	6316	-19349	T	-0.4516	1.0697	10.6S	137.5E	63	254	06m22s
05828	08	0453	Aug 20	12:07:55	6137	-19126	T	-0.5045	1.0656	17.2S	16.3E	60	247	05m50s
05871	09	0471	Aug 31	20:07:11	5960	-18903	T	-0.5507	1.0611	23.8S	107.1W	56	239	05m15s
05914	10	0489	Sep 11	04:13:02	5783	-18680	T	-0.5912	1.0564	30.4S	127.8E	54	229	04m40s
05958	11	0507	Sep 22	12:27:05	5606	-18457	T	-0.6247	1.0516	36.8S	0.7E	51	217	04m06s
06002	12	0525	Oct 02	20:48:13	5430	-18234	T	-0.6521	1.0469	43.1S	127.7W	49	205	03m35s
06047	13	0543	Oct 14	05:17:10	5254	-18011	T	-0.6726	1.0424	48.9S	102.6E	47	191	03m07s
06093	14	0561	Oct 24	13:50:59	5080	-17788	T	-0.6888	1.0381	54.5S	27.3W	46	176	02m43s
06139	15	0579	Nov 04	22:31:45	4907	-17565	T	-0.6991	1.0344	59.4S	157.1W	45	162	02m24s
06185	16	0597	Nov 15	07:16:12	4736	-17342	T	-0.7064	1.0310	63.7S	74.5E	45	148	02m07s
06230	17	0615	Nov 26	16:04:23	4565	-17119	T	-0.7105	1.0282	67.0S	51.7W	44	137	01m54s
06275	18	0633	Dec 07	00:53:04	4397	-16896	T	-0.7139	1.0258	68.9S	175.0W	44	126	01m43s
06321	19	0651	Dec 18	09:42:29	4229	-16673	T	-0.7167	1.0241	69.2S	63.2E	44	118	01m36s
06368	20	0669	Dec 28	18:29:34	4064	-16450	T	-0.7212	1.0227	68.0S	58.9W	44	112	01m30s
06413	21	0688	Jan 09	03:13:09	3900	-16227	T	-0.7284	1.0218	65.6S	177.5E	43	108	01m27s

06457	22	0706	Jan 19	11:51:48	3739	-16004	T	-0.7395	1.0211	62.5S	52.6E	42	107	01m24s
06499	23	0724	Jan 30	20:24:34	3580	-15781	T	-0.7552	1.0207	59.2S	72.8W	41	107	01m23s
06541	24	0742	Feb 10	04:48:57	3423	-15558	T	-0.7774	1.0203	56.2S	162.8E	39	109	01m22s
06583	25	0760	Feb 21	13:05:15	3269	-15335	T	-0.8057	1.0199	53.6S	39.6E	36	113	01m22s
06624	26	0778	Mar 03	21:12:24	3117	-15112	T	-0.8411	1.0192	51.9S	81.3W	32	119	01m20s
06665	27	0796	Mar 14	05:11:10	2969	-14889	T	-0.8830	1.0181	51.4S	160.4E	28	129	01m16s
06706	28	0814	Mar 25	12:59:04	2824	-14666	T	-0.9332	1.0161	52.9S	46.7E	21	152	01m07s
06747	29	0832	Apr 04	20:39:15	2683	-14443	T	-0.9888	1.0120	58.4S	56.1W	8	305	00m47s
06786	30	0850	Apr 16	04:09:53	2545	-14220	P	-1.0515	0.9045	61.4S	164.2W	0		
06826	31	0868	Apr 26	11:34:04	2411	-13997	P	-1.1188	0.7799	61.9S	75.3E	0		
06866	32	0886	May 07	18:49:14	2282	-13774	P	-1.1926	0.6435	62.6S	43.1W	0		
06906	33	0904	May 18	02:00:21	2156	-13551	P	-1.2687	0.5031	63.3S	160.7W	0		
06946	34	0922	May 29	09:05:23	2034	-13328	P	-1.3483	0.3570	64.2S	83.0E	0		
06987	35	0940	Jun 08	16:07:41	1917	-13105	P	-1.4291	0.2096	65.1S	32.9W	0		
07028	36	0958	Jun 19	23:06:54	1805	-12882	Pe	-1.5110	0.0612	66.1S	148.3W	0		

SAROS SERIES

82

Saros series 82 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	

ECLIPSE

04076	-37	-0293	Apr 22	21:31:56	13914	-28357	Pb	-1.5048	0.0445	70.9S	28.3W	0	
04116	-36	-0275	May 03	05:03:29	13674	-28134	P	-1.4392	0.1713	70.3S	155.2W	0	
04156	-35	-0257	May 14	12:31:26	13439	-27911	P	-1.3708	0.3041	69.5S	79.2E	0	
04197	-34	-0239	May 24	19:57:18	13209	-27688	P	-1.3006	0.4408	68.6S	45.2W	0	
04238	-33	-0221	Jun 05	03:22:34	12984	-27465	P	-1.2298	0.5784	67.7S	168.9W	0	
04279	-32	-0203	Jun 15	10:46:45	12763	-27242	P	-1.1581	0.7173	66.7S	68.1E	0	
04320	-31	-0185	Jun 26	18:13:18	12546	-27019	P	-1.0885	0.8517	65.7S	55.0W	0	
04363	-30	-0167	Jul 07	01:41:42	12334	-26796	P	-1.0204	0.9821	64.8S	178.1W	0	
04406	-29	-0149	Jul 18	09:15:06	12125	-26573	T	-0.9567	1.0553	49.1S	71.0E	16	635 04m06s
04449	-28	-0131	Jul 28	16:51:40	11921	-26350	T	-0.8959	1.0539	40.6S	44.3W	26	398 04m14s
04492	-27	-0113	Aug 09	00:35:30	11719	-26127	T	-0.8414	1.0510	36.0S	162.0W	32	308 04m05s
04535	-26	-0095	Aug 19	08:24:57	11521	-25904	T	-0.7919	1.0472	33.5S	78.9E	37	252 03m47s
04578	-25	-0077	Aug 30	16:21:46	11327	-25681	T	-0.7491	1.0429	32.7S	42.0W	41	211 03m25s
04623	-24	-0059	Sep 10	00:25:09	11135	-25458	T	-0.7123	1.0380	33.3S	164.5W	44	178 02m59s
04668	-23	-0041	Sep 21	08:36:41	10947	-25235	T	-0.6828	1.0331	35.0S	71.0E	47	150 02m34s
04714	-22	-0023	Oct 01	16:55:10	10760	-25012	T	-0.6597	1.0281	37.6S	55.1W	49	124 02m09s
04760	-21	-0005	Oct 13	01:19:37	10577	-24789	T	-0.6420	1.0233	40.9S	177.6E	50	102 01m46s
04805	-20	0013	Oct 23	09:50:43	10395	-24566	T	-0.6305	1.0186	44.7S	48.9E	51	81 01m23s
04851	-19	0031	Nov 03	18:26:45	10216	-24343	T	-0.6241	1.0143	48.8S	80.4W	51	62 01m04s
04898	-18	0049	Nov 14	03:06:57	10038	-24120	H	-0.6212	1.0104	52.8S	150.3E	51	46 00m46s
04942	-17	0067	Nov 25	11:48:04	9862	-23897	H	-0.6200	1.0071	56.5S	22.2E	51	31 00m31s
04986	-16	0085	Dec 05	20:30:56	9688	-23674	H	-0.6207	1.0042	59.5S	104.5W	51	19 00m19s

05031	-15	0103	Dec 17	05:12:14	9514	-23451	H	-0.6209	1.0019	61.5S	131.0E	51	9	00m09s
05075	-14	0121	Dec 27	13:50:54	9342	-23228	H	-0.6196	1.0002	62.0S	8.3E	51	1	00m01s
05119	-13	0140	Jan 07	22:24:43	9170	-23005	A	-0.6151	0.9989	60.9S	113.5W	52	5	00m05s
05162	-12	0158	Jan 18	06:53:14	8999	-22782	A	-0.6069	0.9981	58.2S	124.6E	52	8	00m09s
05203	-11	0176	Jan 29	15:13:49	8828	-22559	A	-0.5930	0.9978	54.1S	2.3E	53	10	00m11s
05244	-10	0194	Feb 08	23:26:02	8657	-22336	A	-0.5730	0.9977	49.0S	119.9W	55	10	00m12s
05285	-09	0212	Feb 20	07:28:52	8486	-22113	A	-0.5462	0.9978	43.2S	118.6E	57	9	00m11s
05326	-08	0230	Mar 02	15:22:39	8314	-21890	A	-0.5130	0.9980	36.8S	1.8W	59	8	00m11s
05367	-07	0248	Mar 12	23:05:01	8143	-21667	A	-0.4710	0.9982	29.9S	120.1W	62	7	00m10s
05409	-06	0266	Mar 24	06:38:31	7970	-21444	A	-0.4226	0.9982	22.7S	123.4E	65	7	00m11s
05449	-05	0284	Apr 03	14:01:36	7797	-21221	A	-0.3662	0.9980	15.2S	9.3E	68	7	00m13s
05489	-04	0302	Apr 14	21:16:59	7624	-20998	A	-0.3045	0.9974	7.6S	102.8W	72	9	00m17s
05528	-03	0320	Apr 25	04:21:58	7449	-20775	A	-0.2349	0.9965	0.0N	147.9E	76	13	00m24s
05568	-02	0338	May 06	11:22:03	7274	-20552	Am	-0.1621	0.9949	7.4N	40.2E	81	18	00m35s
05608	-01	0356	May 16	18:14:27	7097	-20329	A	-0.0835	0.9929	14.7N	65.0W	85	25	00m49s
05648	00	0374	May 28	01:04:03	6920	-20106	A	-0.0035	0.9903	21.4N	168.7W	90	34	01m06s
05689	01	0392	Jun 07	07:48:24	6743	-19883	A	0.0801	0.9872	27.7N	89.8E	85	45	01m26s
05730	02	0410	Jun 18	14:33:19	6565	-19660	A	0.1623	0.9835	33.1N	10.7W	80	59	01m47s
05771	03	0428	Jun 28	21:16:15	6386	-19437	A	0.2453	0.9792	37.6N	109.7W	76	76	02m10s
05812	04	0446	Jul 10	04:00:55	6208	-19214	A	0.3260	0.9745	41.1N	151.9E	71	97	02m32s
05854	05	0464	Jul 20	10:47:29	6030	-18991	A	0.4042	0.9693	43.4N	53.7E	66	120	02m57s
05897	06	0482	Jul 31	17:38:50	5853	-18768	A	0.4775	0.9639	44.5N	45.5W	61	148	03m23s
05941	07	0500	Aug 11	00:35:02	5677	-18545	A	0.5458	0.9582	44.7N	146.1W	57	180	03m50s
05985	08	0518	Aug 22	07:37:14	5499	-18322	A	0.6084	0.9524	44.1N	111.0E	52	216	04m21s
06029	09	0536	Sep 01	14:46:51	5323	-18099	A	0.6640	0.9466	43.0N	5.4E	48	258	04m54s
06075	10	0554	Sep 12	22:04:09	5149	-17876	A	0.7127	0.9409	41.8N	103.1W	44	304	05m30s
06121	11	0572	Sep 23	05:28:53	4975	-17653	A	0.7545	0.9354	40.6N	145.5E	41	355	06m08s
06167	12	0590	Oct 04	13:02:00	4803	-17430	A	0.7888	0.9303	39.5N	31.1E	38	411	06m50s

06212	13	0608 Oct 14	20:42:44	4632 -17207	A	0.8163	0.9257	38.5N	86.0W	35	468	07m33s
06257	14	0626 Oct 26	04:31:02	4463 -16984	A	0.8372	0.9216	37.8N	154.2E	33	525	08m17s
06302	15	0644 Nov 05	12:24:02	4295 -16761	A	0.8539	0.9181	37.4N	32.6E	31	582	08m59s
06349	16	0662 Nov 16	20:23:11	4129 -16538	A	0.8650	0.9153	37.2N	91.0W	30	630	09m37s
06395	17	0680 Nov 27	04:24:53	3965 -16315	A	0.8734	0.9133	37.3N	144.4E	29	673	10m08s
06439	18	0698 Dec 08	12:28:45	3802 -16092	A	0.8799	0.9120	37.8N	19.0E	28	707	10m28s
06482	19	0716 Dec 18	20:30:55	3642 -15869	A	0.8874	0.9112	39.0N	106.1W	27	740	10m35s
06525	20	0734 Dec 30	04:32:13	3484 -15646	A	0.8952	0.9112	40.9N	128.8E	26	768	10m28s
06567	21	0753 Jan 09	12:29:12	3329 -15423	A	0.9060	0.9116	43.6N	4.4E	25	805	10m06s
06608	22	0771 Jan 20	20:20:40	3177 -15200	A	0.9210	0.9125	47.5N	119.4W	22	863	09m31s
06649	23	0789 Jan 31	04:05:08	3027 -14977	A	0.9412	0.9136	52.7N	117.2E	19	984	08m47s
06690	24	0807 Feb 11	11:42:08	2881 -14754	A	0.9674	0.9147	59.8N	7.8W	14	1318	07m53s
06731	25	0825 Feb 21	19:10:32	2738 -14531	A+	1.0002	0.9516	71.5N	154.8W	0		
06771	26	0843 Mar 05	02:29:36	2599 -14308	P	1.0404	0.8856	71.9N	80.9E	0		
06811	27	0861 Mar 15	09:40:04	2464 -14085	P	1.0873	0.8079	72.1N	41.5W	0		
06851	28	0879 Mar 26	16:42:00	2332 -13862	P	1.1411	0.7181	72.0N	161.7W	0		
06891	29	0897 Apr 05	23:34:59	2205 -13639	P	1.2019	0.6157	71.6N	80.6E	0		
06931	30	0915 Apr 17	06:21:01	2082 -13416	P	1.2684	0.5029	71.0N	34.9W	0		
06971	31	0933 Apr 27	13:00:25	1963 -13193	P	1.3402	0.3803	70.3N	148.1W	0		
07012	32	0951 May 08	19:35:30	1848 -12970	P	1.4152	0.2514	69.4N	100.4E	0		
07053	33	0969 May 19	02:05:07	1739 -12747	Pe	1.4945	0.1145	68.4N	9.1W	0		

SAROS SERIES

Saros series 83 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
ECLIPSE													

04262	-34	-0210	May 05	02:07:49	12850	-27330	Pb	1.5500	0.0109	61.9N	80.4E	0	
04303	-33	-0192	May 15	08:44:22	12631	-27107	P	1.4737	0.1451	62.5N	28.7W	0	
04345	-32	-0174	May 26	15:16:29	12417	-26884	P	1.3940	0.2847	63.2N	136.8W	0	
04389	-31	-0156	Jun 05	21:46:46	12207	-26661	P	1.3130	0.4259	64.0N	115.3E	0	
04431	-30	-0138	Jun 17	04:16:00	12001	-26438	P	1.2315	0.5673	64.9N	7.4E	0	
04474	-29	-0120	Jun 27	10:45:54	11798	-26215	P	1.1507	0.7067	65.8N	100.9W	0	
04517	-28	-0102	Jul 08	17:18:06	11599	-25992	P	1.0718	0.8418	66.8N	149.7E	0	
04560	-27	-0084	Jul 18	23:54:35	11403	-25769	An	0.9965	0.9375	69.9N	38.0E	2	- 03m39s
04605	-26	-0066	Jul 30	06:36:44	11211	-25546	A	0.9262	0.9386	82.5N	158.4W	22	617 04m17s
04650	-25	-0048	Aug 09	13:24:18	11021	-25323	A	0.8605	0.9367	73.2N	60.8E	30	466 04m55s
04695	-24	-0030	Aug 20	20:20:09	10834	-25100	A	0.8018	0.9341	64.0N	53.3W	36	412 05m38s
04742	-23	-0012	Aug 31	03:23:34	10649	-24877	A	0.7495	0.9311	55.6N	165.2W	41	388 06m24s
04787	-22	0006	Sep 11	10:36:21	10467	-24654	A	0.7049	0.9281	48.0N	82.0E	45	378 07m13s
04833	-21	0024	Sep 21	17:57:07	10287	-24431	A	0.6669	0.9250	40.9N	32.2W	48	375 08m05s
04879	-20	0042	Oct 03	01:27:27	10108	-24208	A	0.6369	0.9222	34.6N	148.4W	50	377 08m56s
04924	-19	0060	Oct 13	09:05:51	9932	-23985	A	0.6134	0.9196	28.9N	93.7E	52	381 09m47s
04968	-18	0078	Oct 24	16:51:28	9757	-23762	A	0.5957	0.9175	24.0N	25.8W	53	386 10m35s

05013	-17	0096	Nov 04	00:44:00	9583	-23539	A	0.5836	0.9159	19.8N	146.7W	54	392	11m18s
05058	-16	0114	Nov 15	08:41:03	9410	-23316	A	0.5746	0.9149	16.3N	91.5E	55	395	11m52s
05102	-15	0132	Nov 25	16:42:02	9238	-23093	A	0.5691	0.9144	13.6N	31.1W	55	396	12m16s
05146	-14	0150	Dec 07	00:43:01	9066	-22870	A	0.5630	0.9147	11.6N	153.6W	56	393	12m23s
05188	-13	0168	Dec 17	08:45:18	8895	-22647	A	0.5579	0.9156	10.3N	83.7E	56	387	12m14s
05228	-12	0186	Dec 28	16:44:33	8724	-22424	A	0.5496	0.9173	9.6N	38.1W	57	375	11m49s
05269	-11	0205	Jan 08	00:40:31	8553	-22201	A	0.5386	0.9196	9.4N	159.0W	57	359	11m09s
05310	-10	0223	Jan 19	08:29:58	8382	-21978	A	0.5218	0.9226	9.6N	81.8E	58	339	10m21s
05351	-09	0241	Jan 29	16:13:53	8211	-21755	A	0.5002	0.9261	10.2N	35.8W	60	317	09m27s
05392	-08	0259	Feb 09	23:49:56	8038	-21532	A	0.4715	0.9302	11.1N	151.2W	62	292	08m33s
05433	-07	0277	Feb 20	07:17:51	7866	-21309	A	0.4355	0.9346	12.3N	95.7E	64	267	07m40s
05473	-06	0295	Mar 03	14:37:14	7692	-21086	A	0.3920	0.9393	13.5N	14.9W	67	242	06m51s
05512	-05	0313	Mar 13	21:48:58	7518	-20863	A	0.3416	0.9442	14.9N	123.3W	70	217	06m08s
05552	-04	0331	Mar 25	04:52:12	7343	-20640	A	0.2836	0.9493	16.1N	130.8E	73	193	05m28s
05592	-03	0349	Apr 04	11:48:32	7167	-20417	A	0.2189	0.9542	17.0N	27.0E	77	171	04m54s
05632	-02	0367	Apr 15	18:38:26	6990	-20194	A	0.1482	0.9590	17.5N	74.9W	81	150	04m24s
05673	-01	0385	Apr 26	01:24:13	6813	-19971	A	0.0732	0.9636	17.5N	175.6W	86	132	03m59s
05714	00	0403	May 07	08:04:37	6635	-19748	A	-0.0070	0.9679	16.6N	85.2E	90	116	03m36s
05755	01	0421	May 17	14:44:02	6457	-19525	Am	-0.0888	0.9716	14.9N	14.0W	85	102	03m17s
05796	02	0439	May 28	21:21:24	6278	-19302	A	-0.1728	0.9750	12.2N	113.0W	80	90	02m59s
05837	03	0457	Jun 08	04:01:10	6100	-19079	A	-0.2559	0.9779	8.5N	146.9E	75	81	02m43s
05880	04	0475	Jun 19	10:40:23	5922	-18856	A	-0.3401	0.9802	3.9N	46.3E	70	75	02m29s
05923	05	0493	Jun 29	17:25:33	5746	-18633	A	-0.4200	0.9819	1.5S	56.5W	65	71	02m16s
05967	06	0511	Jul 11	00:13:47	5569	-18410	A	-0.4979	0.9831	7.6S	160.8W	60	69	02m05s
06012	07	0529	Jul 21	07:09:42	5393	-18187	A	-0.5701	0.9838	14.2S	92.2E	55	70	01m56s
06057	08	0547	Aug 01	14:11:29	5217	-17964	A	-0.6384	0.9840	21.3S	17.0W	50	73	01m48s
06103	09	0565	Aug 11	21:23:39	5044	-17741	A	-0.6988	0.9839	28.6S	129.5W	45	79	01m42s
06149	10	0583	Aug 23	04:44:22	4871	-17518	A	-0.7529	0.9834	36.1S	115.2E	41	89	01m38s

06194	11	0601 Sep 02	12:14:51	4700	-17295	A	-0.7997	0.9828	43.5S	3.3W	37	101	01m34s
06239	12	0619 Sep 13	19:55:18	4530	-17072	A	-0.8391	0.9819	50.7S	125.2W	33	117	01m31s
06284	13	0637 Sep 24	03:46:29	4361	-16849	A	-0.8707	0.9813	57.5S	109.4E	29	135	01m28s
06330	14	0655 Oct 05	11:47:14	4194	-16626	A	-0.8953	0.9807	63.9S	19.5W	26	154	01m24s
06376	15	0673 Oct 15	19:56:59	4029	-16403	A	-0.9133	0.9805	69.6S	151.9W	24	172	01m20s
06421	16	0691 Oct 27	04:15:17	3866	-16180	A	-0.9252	0.9807	74.7S	72.2E	22	184	01m16s
06465	17	0709 Nov 06	12:41:08	3705	-15957	A	-0.9319	0.9814	79.2S	67.4W	21	186	01m10s
06508	18	0727 Nov 17	21:12:00	3546	-15734	A	-0.9352	0.9827	83.3S	146.8E	20	177	01m03s
06550	19	0745 Nov 28	05:47:42	3390	-15511	A	-0.9354	0.9847	86.7S	19.2W	20	157	00m54s
06592	20	0763 Dec 09	14:25:24	3237	-15288	A	-0.9348	0.9872	86.6S	127.7E	20	131	00m45s
06633	21	0781 Dec 19	23:04:25	3086	-15065	A	-0.9337	0.9903	83.2S	37.2W	21	97	00m34s
06674	22	0799 Dec 31	07:41:20	2938	-14842	A	-0.9351	0.9939	79.1S	179.4W	20	62	00m21s
06715	23	0818 Jan 10	16:17:09	2794	-14619	A	-0.9382	0.9979	75.1S	43.4E	20	22	00m07s
06755	24	0836 Jan 22	00:48:35	2654	-14396	H	-0.9459	1.0021	71.2S	89.1W	18	23	00m07s
06795	25	0854 Feb 01	09:15:03	2517	-14173	T	-0.9582	1.0065	67.8S	142.0E	16	80	00m22s
06835	26	0872 Feb 12	17:35:06	2384	-13950	T	-0.9765	1.0105	64.9S	18.6E	12	175	00m36s
06875	27	0890 Feb 23	01:48:59	2255	-13727	T-	-1.0005	1.0005	61.2S	89.1W	0		
06915	28	0908 Mar 05	09:56:14	2130	-13504	P	-1.0310	0.9465	61.0S	139.9E	0		
06955	29	0926 Mar 16	17:55:33	2009	-13281	P	-1.0686	0.8785	60.9S	10.8E	0		
06996	30	0944 Mar 27	01:48:39	1893	-13058	P	-1.1120	0.7986	61.0S	116.6W	0		
07037	31	0962 Apr 07	09:34:49	1781	-12835	P	-1.1615	0.7065	61.3S	117.6E	0		
07077	32	0980 Apr 17	17:15:17	1674	-12612	P	-1.2162	0.6033	61.7S	6.8W	0		
07119	33	0998 Apr 29	00:49:49	1572	-12389	P	-1.2763	0.4887	62.2S	129.9W	0		
07161	34	1016 May 09	08:20:53	1474	-12166	P	-1.3396	0.3670	62.9S	107.8E	0		
07203	35	1034 May 20	15:48:37	1380	-11943	P	-1.4058	0.2391	63.7S	14.0W	0		
07246	36	1052 May 30	23:13:57	1292	-11720	Pe	-1.4743	0.1062	64.5S	135.3W	0		

SAROS SERIES

84

Saros series 84 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

04329	-35	-0181	Apr 14	08:48:52	12501	-26972	Pb	-1.5134	0.0692	71.4S	165.8E	0	
04372	-34	-0163	Apr 24	15:44:48	12290	-26749	P	-1.4394	0.1987	70.9S	47.5E	0	
04415	-33	-0145	May 05	22:36:34	12082	-26526	P	-1.3604	0.3385	70.2S	69.3W	0	
04458	-32	-0127	May 16	05:28:25	11878	-26303	P	-1.2800	0.4823	69.4S	174.5E	0	
04501	-31	-0109	May 27	12:19:21	11677	-26080	P	-1.1974	0.6312	68.4S	59.1E	0	
04544	-30	-0091	Jun 06	19:11:26	11480	-25857	P	-1.1144	0.7821	67.4S	56.1W	0	
04588	-29	-0073	Jun 18	02:06:24	11286	-25634	P	-1.0323	0.9320	66.4S	171.4W	0	
04633	-28	-0055	Jun 28	09:05:34	11095	-25411	A	-0.9523	0.9991	48.5S	79.5E	17	10 00m05s
04678	-27	-0037	Jul 09	16:10:20	10907	-25188	H	-0.8758	1.0041	37.3S	29.6W	29	30 00m24s
04724	-26	-0019	Jul 19	23:20:57	10722	-24965	H	-0.8030	1.0076	30.2S	139.5W	36	44 00m45s
04770	-25	-0001	Jul 31	06:40:18	10538	-24742	H	-0.7362	1.0101	25.6S	108.8E	42	50 00m59s

04815 -24 0017 Aug 10 14:07:44 10357 -24519 H -0.6750 1.0118 22.9S 4.6W 47 54 01m08s
04861 -23 0035 Aug 21 21:43:50 10178 -24296 H2 -0.6201 1.0130 21.7S 119.8W 52 56 01m13s
04906 -22 0053 Sep 01 05:29:38 10001 -24073 H2 -0.5723 1.0138 21.8S 122.6E 55 57 01m15s
04950 -21 0071 Sep 12 13:25:34 9826 -23850 H2 -0.5324 1.0142 23.1S 2.5E 58 57 01m15s
04994 -20 0089 Sep 22 21:31:16 9651 -23627 H2 -0.4994 1.0146 25.2S 119.9W 60 57 01m15s
05039 -19 0107 Oct 04 05:45:26 9478 -23404 H2 -0.4727 1.0149 28.1S 115.6E 62 57 01m15s
05084 -18 0125 Oct 14 14:08:53 9306 -23181 H2 -0.4532 1.0153 31.5S 10.9W 63 58 01m16s
05128 -17 0143 Oct 25 22:40:07 9134 -22958 H2 -0.4397 1.0158 35.1S 139.1W 64 60 01m18s
05171 -16 0161 Nov 05 07:17:14 8963 -22735 T -0.4303 1.0168 38.8S 91.9E 64 63 01m22s
05212 -15 0179 Nov 16 15:59:19 8792 -22512 T -0.4248 1.0180 42.3S 37.6W 65 68 01m27s
05253 -14 0197 Nov 27 00:44:28 8621 -22289 T -0.4213 1.0198 45.2S 167.0W 65 75 01m35s
05294 -13 0215 Dec 08 09:31:55 8450 -22066 T -0.4194 1.0220 47.3S 64.0E 65 83 01m46s
05335 -12 0233 Dec 18 18:17:54 8278 -21843 T -0.4161 1.0249 48.2S 64.0W 65 93 02m00s
05376 -11 0251 Dec 30 03:03:44 8106 -21620 T -0.4123 1.0281 48.0S 168.3E 65 105 02m16s
05417 -10 0270 Jan 09 11:45:03 7934 -21397 T -0.4047 1.0320 46.3S 41.2E 66 118 02m35s
05457 -09 0288 Jan 20 20:22:45 7761 -21174 T -0.3936 1.0362 43.4S 85.8W 67 133 02m57s
05497 -08 0306 Jan 31 04:53:16 7587 -20951 T -0.3761 1.0408 39.3S 147.7E 68 147 03m23s
05536 -07 0324 Feb 11 13:18:54 7412 -20728 T -0.3543 1.0457 34.3S 21.2E 69 163 03m50s
05576 -06 0342 Feb 21 21:36:39 7237 -20505 T -0.3256 1.0507 28.6S 104.3W 71 177 04m20s
05616 -05 0360 Mar 04 05:47:15 7060 -20282 T -0.2905 1.0557 22.4S 131.2E 73 192 04m50s
05657 -04 0378 Mar 15 13:50:01 6883 -20059 T -0.2483 1.0606 15.6S 8.1E 76 205 05m21s
05698 -03 0396 Mar 25 21:46:08 6705 -19836 T -0.2001 1.0653 8.6S 113.6W 78 218 05m50s
05739 -02 0414 Apr 06 05:35:10 6527 -19613 T -0.1457 1.0696 1.4S 126.3E 82 229 06m16s
05780 -01 0432 Apr 16 13:17:57 6348 -19390 T -0.0858 1.0734 5.9N 7.9E 85 239 06m37s
05820 00 0450 Apr 27 20:55:28 6170 -19167 T -0.0211 1.0765 13.2N 109.0W 89 248 06m50s
05862 01 0468 May 08 04:28:58 5992 -18944 Tm 0.0474 1.0789 20.2N 135.7E 87 255 06m56s
05905 02 0486 May 19 11:58:26 5815 -18721 T 0.1193 1.0806 27.0N 22.1E 83 262 06m54s
05949 03 0504 May 29 19:26:16 5639 -18498 T 0.1927 1.0813 33.3N 90.2W 79 267 06m44s

05993	04	0522	Jun 10	02:52:34	5462	-18275	T	0.2675	1.0812	38.9N	159.1E	74	272	06m28s
06038	05	0540	Jun 20	10:19:58	5286	-18052	T	0.3414	1.0801	43.7N	49.4E	70	275	06m07s
06085	06	0558	Jul 01	17:47:13	5112	-17829	T	0.4153	1.0783	47.5N	59.0W	65	278	05m45s
06131	07	0576	Jul 12	01:18:44	4939	-17606	T	0.4856	1.0755	50.0N	167.5W	61	280	05m21s
06177	08	0594	Jul 23	08:52:46	4767	-17383	T	0.5537	1.0720	51.3N	83.9E	56	280	04m58s
06222	09	0612	Aug 02	16:33:18	4597	-17160	T	0.6163	1.0679	51.5N	26.5W	52	280	04m35s
06267	10	0630	Aug 14	00:17:53	4428	-16937	T	0.6751	1.0631	50.9N	138.7W	47	278	04m13s
06312	11	0648	Aug 24	08:10:54	4260	-16714	T	0.7270	1.0579	49.8N	105.7E	43	274	03m52s
06359	12	0666	Sep 04	16:09:34	4094	-16491	T	0.7740	1.0524	48.5N	12.3W	39	269	03m31s
06404	13	0684	Sep 15	00:16:17	3930	-16268	T	0.8140	1.0468	47.2N	133.6W	35	263	03m11s
06448	14	0702	Sep 26	08:29:49	3768	-16045	T	0.8481	1.0410	46.2N	102.4E	32	253	02m51s
06491	15	0720	Oct 06	16:51:39	3609	-15822	T	0.8749	1.0355	45.5N	24.8W	29	241	02m32s
06533	16	0738	Oct 18	01:19:49	3451	-15599	T	0.8964	1.0302	45.0N	154.4W	26	226	02m13s
06575	17	0756	Oct 28	09:53:47	3297	-15376	T	0.9127	1.0254	44.9N	73.6E	24	208	01m55s
06616	18	0774	Nov 08	18:33:10	3145	-15153	T	0.9242	1.0210	45.0N	60.4W	22	186	01m38s
06658	19	0792	Nov 19	03:16:47	2996	-14930	T	0.9316	1.0172	45.2N	163.8E	21	162	01m23s
06699	20	0810	Nov 30	12:02:24	2851	-14707	T	0.9373	1.0139	45.7N	27.2E	20	138	01m08s
06740	21	0828	Dec 10	20:49:00	2709	-14484	T	0.9416	1.0113	46.6N	110.0W	19	117	00m56s
06779	22	0846	Dec 22	05:34:51	2570	-14261	T	0.9462	1.0090	48.0N	112.8E	18	98	00m45s
06819	23	0865	Jan 01	14:19:03	2436	-14038	T	0.9518	1.0073	50.1N	24.4W	17	84	00m36s
06859	24	0883	Jan 12	22:58:13	2305	-13815	T	0.9609	1.0057	53.3N	160.9W	15	73	00m27s
06899	25	0901	Jan 23	07:33:16	2179	-13592	T	0.9731	1.0042	57.8N	62.0E	13	67	00m19s
06939	26	0919	Feb 03	16:00:53	2056	-13369	T	0.9909	1.0020	65.2N	78.9W	6	62	00m09s
06980	27	0937	Feb 14	00:21:18	1938	-13146	P	1.0142	0.9686	71.1N	132.6E	0		
07021	28	0955	Feb 25	08:32:13	1825	-12923	P	1.0447	0.9127	71.7N	4.3W	0		
07062	29	0973	Mar 07	16:34:55	1716	-12700	P	1.0813	0.8457	72.0N	139.5W	0		
07102	30	0991	Mar 19	00:28:00	1612	-12477	P	1.1249	0.7658	72.0N	87.6E	0		
07144	31	1009	Mar 29	08:11:00	1512	-12254	P	1.1762	0.6719	71.8N	42.7W	0		

07186 32 1027 Apr 09 15:45:07 1417 -12031 P 1.2337 0.5664 71.4N 170.4W 0

07228 33 1045 Apr 19 23:10:13 1326 -11808 P 1.2979 0.4491 70.7N 64.7E 0

07272 34 1063 May 01 06:27:56 1240 -11585 P 1.3668 0.3234 69.9N 57.8W 0

07316 35 1081 May 11 13:37:25 1159 -11362 P 1.4413 0.1880 69.0N 177.6W 0

07361 36 1099 May 22 20:42:06 1082 -11139 Pe 1.5185 0.0483 68.1N 64.4E 0

SAROS SERIES

85

Saros series 85 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

04355 -38 -0170 Mar 14 10:28:38 12373 -26837 Pb 1.5120 0.0356 61.0N 5.4W 0

04399 -37 -0152 Mar 24 18:24:00 12163 -26614 P 1.4645 0.1261 60.9N 133.9W 0

04441 -36 -0134 Apr 05 02:10:19 11958 -26391 P 1.4096 0.2311 61.0N 99.9E 0

04484 -35 -0116 Apr 15 09:51:58 11756 -26168 P 1.3512 0.3437 61.2N 25.2W 0

04527 -34 -0098 Apr 26 17:26:44 11558 -25945 P 1.2874 0.4672 61.6N 148.5W 0

04570 -33 -0080 May 07 00:58:19 11362 -25722 P 1.2210 0.5958 62.1N 88.8E 0
 04615 -32 -0062 May 18 08:24:31 11170 -25499 P 1.1504 0.7326 62.7N 32.7W 0
 04660 -31 -0044 May 28 15:49:54 10981 -25276 P 1.0793 0.8701 63.4N 154.2W 0
 04706 -30 -0026 Jun 08 23:13:01 10795 -25053 T+ 1.0068 1.0095 64.3N 84.7E 0
 04752 -29 -0008 Jun 19 06:36:42 10610 -24830 T 0.9352 1.0602 82.0N 10.9E 20 573 03m08s
 04797 -28 0010 Jun 30 14:01:10 10429 -24607 T 0.8645 1.0599 83.1N 11.6W 30 397 03m22s
 04843 -27 0028 Jul 10 21:28:53 10249 -24384 T 0.7971 1.0582 75.9N 95.4W 37 320 03m30s
 04889 -26 0046 Jul 22 05:00:32 10071 -24161 T 0.7334 1.0552 68.1N 158.1E 43 270 03m34s
 04933 -25 0064 Aug 01 12:36:13 9895 -23938 T 0.6735 1.0515 60.5N 45.5E 47 231 03m33s
 04977 -24 0082 Aug 12 20:18:16 9720 -23715 T 0.6196 1.0470 53.0N 70.7W 51 199 03m27s
 05022 -23 0100 Aug 23 04:06:15 9546 -23492 T 0.5713 1.0421 45.8N 170.6E 55 171 03m17s
 05066 -22 0118 Sep 03 12:01:49 9374 -23269 T 0.5298 1.0368 38.9N 49.5E 58 145 03m02s
 05110 -21 0136 Sep 13 20:03:55 9202 -23046 T 0.4944 1.0314 32.4N 73.4W 60 121 02m43s
 05154 -20 0154 Sep 25 04:14:23 9030 -22823 T 0.4664 1.0258 26.2N 161.4E 62 99 02m20s
 05196 -19 0172 Oct 05 12:31:27 8859 -22600 T 0.4449 1.0204 20.6N 34.7E 63 77 01m56s
 05237 -18 0190 Oct 16 20:54:58 8688 -22377 H3 0.4293 1.0152 15.6N 93.5W 64 57 01m30s
 05278 -17 0208 Oct 27 05:23:55 8517 -22154 H 0.4189 1.0103 11.2N 137.1E 65 39 01m03s
 05319 -16 0226 Nov 07 13:58:09 8346 -21931 H 0.4133 1.0058 7.5N 6.7E 66 22 00m37s
 05360 -15 0244 Nov 17 22:34:57 8174 -21708 H 0.4108 1.0019 4.6N 124.2W 66 7 00m12s
 05401 -14 0262 Nov 29 07:13:23 8002 -21485 A 0.4102 0.9984 2.5N 104.6E 66 6 00m11s
 05441 -13 0280 Dec 09 15:51:37 7829 -21262 A 0.4102 0.9955 1.1N 26.3W 66 17 00m30s
 05481 -12 0298 Dec 21 00:29:21 7656 -21039 A 0.4101 0.9932 0.5N 157.1W 66 26 00m46s
 05520 -11 0316 Dec 31 09:02:13 7481 -20816 A 0.4067 0.9915 0.4N 73.3E 66 33 00m58s
 05560 -10 0335 Jan 11 17:31:30 7306 -20593 A 0.4009 0.9901 1.1N 55.3W 66 38 01m05s
 05600 -09 0353 Jan 22 01:53:03 7130 -20370 A 0.3893 0.9894 2.1N 178.0E 67 40 01m09s
 05640 -08 0371 Feb 02 10:08:42 6953 -20147 A 0.3735 0.9889 3.7N 52.8E 68 42 01m10s
 05682 -07 0389 Feb 12 18:13:26 6775 -19924 A 0.3491 0.9887 5.3N 69.6W 70 42 01m10s
 05723 -06 0407 Feb 24 02:11:01 6597 -19701 A 0.3195 0.9887 7.3N 170.0E 71 42 01m08s

05764	-05	0425	Mar	06	09:57:04	6419	-19478	A	0.2811	0.9887	9.2N	52.7E	74	41	01m07s
05805	-04	0443	Mar	17	17:33:56	6241	-19255	A	0.2358	0.9887	11.0N	62.0W	76	41	01m06s
05846	-03	0461	Mar	28	00:59:22	6062	-19032	A	0.1820	0.9885	12.6N	173.6W	79	41	01m08s
05889	-02	0479	Apr	08	08:16:42	5885	-18809	Am	0.1223	0.9881	13.8N	77.2E	83	42	01m11s
05932	-01	0497	Apr	18	15:24:14	5709	-18586	A	0.0554	0.9873	14.3N	29.3W	87	45	01m18s
05976	00	0515	Apr	29	22:23:38	5532	-18363	A	-0.0175	0.9861	14.1N	133.6W	89	49	01m28s
06020	01	0533	May	10	05:15:53	5356	-18140	A	-0.0950	0.9844	13.0N	123.8E	85	56	01m43s
06066	02	0551	May	21	12:03:02	5181	-17917	A	-0.1757	0.9822	10.9N	22.4E	80	64	02m03s
06112	03	0569	May	31	18:45:18	5007	-17694	A	-0.2596	0.9794	7.7N	78.2W	75	76	02m29s
06159	04	0587	Jun	12	01:24:29	4835	-17471	A	-0.3451	0.9761	3.4N	178.6W	70	91	03m01s
06204	05	0605	Jun	22	08:02:39	4664	-17248	A	-0.4305	0.9722	1.8S	80.6E	64	110	03m35s
06249	06	0623	Jul	03	14:41:23	4494	-17025	A	-0.5142	0.9678	8.0S	21.1W	59	135	04m11s
06294	07	0641	Jul	13	21:20:57	4326	-16802	A	-0.5962	0.9630	15.0S	123.9W	53	167	04m45s
06340	08	0659	Jul	25	04:04:28	4159	-16579	A	-0.6740	0.9577	22.7S	131.5E	47	208	05m13s
06386	09	0677	Aug	04	10:52:22	3995	-16356	A	-0.7474	0.9521	31.0S	24.7E	41	262	05m33s
06430	10	0695	Aug	15	17:47:00	3832	-16133	A	-0.8142	0.9463	39.7S	84.9W	35	338	05m46s
06473	11	0713	Aug	26	00:46:30	3671	-15910	A	-0.8762	0.9401	49.0S	162.1E	28	458	05m52s
06516	12	0731	Sep	06	07:54:58	3513	-15687	A	-0.9299	0.9338	58.5S	43.3E	21	673	05m51s
06558	13	0749	Sep	16	15:10:13	3357	-15464	As	-0.9773	0.9269	68.3S	89.2W	11	-	05m42s
06600	14	0767	Sep	27	22:34:38	3205	-15241	A-	-1.0165	0.9270	72.0S	112.6E	0		
06641	15	0785	Oct	08	06:06:06	3055	-15018	P	-1.0495	0.8699	71.7S	15.0W	0		
06683	16	0803	Oct	19	13:46:27	2908	-14795	P	-1.0747	0.8264	71.2S	144.4W	0		
06724	17	0821	Oct	29	21:33:18	2764	-14572	P	-1.0942	0.7929	70.4S	85.1E	0		
06764	18	0839	Nov	10	05:25:44	2624	-14349	P	-1.1088	0.7679	69.5S	46.1W	0		
06804	19	0857	Nov	20	13:23:00	2488	-14126	P	-1.1192	0.7502	68.4S	177.9W	0		
06844	20	0875	Dec	01	21:23:41	2356	-13903	P	-1.1270	0.7370	67.3S	50.1E	0		
06884	21	0893	Dec	12	05:25:39	2228	-13680	P	-1.1334	0.7264	66.2S	81.6W	0		
06924	22	0911	Dec	23	13:26:37	2104	-13457	P	-1.1406	0.7146	65.2S	147.4E	0		

06964	23	0930	Jan 02	21:26:03	1984	-13234	P	-1.1490	0.7010	64.2S	17.3E	0
07005	24	0948	Jan 14	05:22:02	1869	-13011	P	-1.1604	0.6824	63.3S	111.6W	0
07046	25	0966	Jan 24	13:11:50	1758	-12788	P	-1.1766	0.6559	62.5S	121.3E	0
07086	26	0984	Feb 04	20:55:19	1652	-12565	P	-1.1979	0.6210	61.8S	3.9W	0
07128	27	1002	Feb 15	04:30:46	1551	-12342	P	-1.2256	0.5752	61.3S	127.0W	0
07170	28	1020	Feb 26	11:58:42	1454	-12119	P	-1.2592	0.5190	61.0S	111.9E	0
07212	29	1038	Mar 08	19:16:36	1361	-11896	P	-1.3010	0.4487	60.9S	6.6W	0
07255	30	1056	Mar 19	02:27:00	1274	-11673	P	-1.3488	0.3678	60.9S	123.2W	0
07298	31	1074	Mar 30	09:28:21	1191	-11450	P	-1.4035	0.2745	61.0S	122.5E	0
07342	32	1092	Apr 09	16:21:49	1112	-11227	P	-1.4644	0.1696	61.4S	10.1E	0
07388	33	1110	Apr 20	23:08:10	1038	-11004	Pe	-1.5310	0.0544	61.8S	100.7W	0

SAROS SERIES

86

Saros series 86 contains 71 solar eclipses.

[illegible]

ECLIPSE

04597 -33 -0069 Apr 06 23:01:31 11246 -25587 Pb -1.5229 0.0607 71.6S 44.3W 0

04642 -32 -0051 Apr 17 05:51:00 11055 -25364 P -1.4574 0.1746 71.2S 161.1W 0

04687 -31 -0033 Apr 28 12:34:02 10868 -25141 P -1.3870 0.2970 70.6S 84.1E 0

04734 -30 -0015 May 08 19:09:41 10683 -24918 P -1.3108 0.4294 69.9S 28.4W 0

04779 -29 0003 May 20 01:41:30 10500 -24695 P -1.2319 0.5663 69.0S 139.3W 0

04825 -28 0021 May 30 08:07:52 10320 -24472 P -1.1487 0.7102 68.0S 111.8E 0

04871 -27 0039 Jun 10 14:34:18 10141 -24249 P -1.0656 0.8534 67.0S 3.3E 0

04916 -26 0057 Jun 20 20:59:17 9964 -24026 As -0.9809 0.9434 55.8S 101.3W 10 - 05m25s

04960 -25 0075 Jul 02 03:26:47 9789 -23803 A -0.8984 0.9446 40.1S 158.7E 26 466 06m10s

05004 -24 0093 Jul 12 09:56:16 9615 -23580 A -0.8175 0.9437 31.2S 58.8E 35 358 06m41s

05049 -23 0111 Jul 23 16:31:55 9442 -23357 A -0.7415 0.9421 25.2S 42.0W 42 314 07m03s

05093 -22 0129 Aug 02 23:12:37 9269 -23134 A -0.6694 0.9398 21.2S 143.6W 48 295 07m20s

05137 -21 0147 Aug 14 06:00:10 9098 -22911 A -0.6027 0.9372 18.8S 113.5E 53 286 07m31s

05179 -20 0165 Aug 24 12:55:58 8927 -22688 A -0.5429 0.9343 17.9S 8.7E 57 286 07m42s

05220 -19 0183 Sep 04 20:00:32 8756 -22465 A -0.4903 0.9315 18.2S 98.2W 61 289 07m51s

05261 -18 0201 Sep 15 03:14:40 8585 -22242 A -0.4453 0.9286 19.6S 152.6E 63 295 08m01s

05302 -17 0219 Sep 26 10:36:54 8414 -22019 A -0.4070 0.9259 21.7S 41.4E 66 301 08m13s

05344 -16 0237 Oct 06 18:09:22 8242 -21796 A -0.3770 0.9234 24.5S 72.3W 68 309 08m25s

05385 -15 0255 Oct 18 01:49:03 8070 -21573 A -0.3529 0.9214 27.7S 172.5E 69 315 08m37s

05426 -14 0273 Oct 28 09:36:39 7898 -21350 A -0.3353 0.9197 31.0S 55.6E 70 321 08m49s

05466 -13 0291 Nov 08 17:29:47 7724 -21127 A -0.3220 0.9186 34.2S 62.2W 71 325 09m00s

05505 -12 0309 Nov 19 01:28:42 7550 -20904 A -0.3133 0.9181 37.1S 179.1E 72 327 09m08s

05544 -11 0327 Nov 30 09:29:55 7375 -20681 A -0.3063 0.9183 39.3S 60.5E 72 326 09m12s

05584 -10 0345 Dec 10 17:32:54 7199 -20458 A -0.3003 0.9191 40.6S 57.9W 72 322 09m13s

05624 -09 0363 Dec 22 01:35:17 7023 -20235 A -0.2937 0.9207 40.8S 175.9W 73 315 09m08s

05665 -08 0382 Jan 01 09:36:33 6846 -20012 A -0.2861 0.9228 39.9S 66.2E 73 305 08m59s

05706	-07	0400	Jan 12	17:32:37	6668	-19789	A	-0.2735	0.9257	37.6S	50.8W	74	291	08m44s
05748	-06	0418	Jan 23	01:24:23	6489	-19566	A	-0.2570	0.9291	34.2S	167.6W	75	275	08m26s
05789	-05	0436	Feb 03	09:08:51	6311	-19343	A	-0.2341	0.9331	29.8S	76.4E	76	257	08m03s
05829	-04	0454	Feb 13	16:47:54	6133	-19120	A	-0.2063	0.9375	24.5S	39.0W	78	237	07m36s
05872	-03	0472	Feb 25	00:16:40	5955	-18897	A	-0.1696	0.9424	18.4S	152.8W	80	216	07m05s
05915	-02	0490	Mar 07	07:39:25	5778	-18674	A	-0.1274	0.9474	11.8S	94.5E	83	195	06m30s
05959	-01	0508	Mar 17	14:52:12	5602	-18451	A	-0.0762	0.9525	4.7S	16.3W	86	174	05m52s
06003	00	0526	Mar 28	21:59:31	5425	-18228	A	-0.0200	0.9578	2.7N	125.8W	89	154	05m11s
06048	01	0544	Apr 08	04:57:45	5250	-18005	A	0.0445	0.9629	10.4N	126.9E	87	135	04m29s
06094	02	0562	Apr 19	11:52:31	5075	-17782	Am	0.1125	0.9678	18.2N	20.6E	83	117	03m47s
06140	03	0580	Apr 29	18:41:09	4903	-17559	A	0.1866	0.9724	25.9N	83.6W	79	101	03m08s
06186	04	0598	May 11	01:27:21	4731	-17336	A	0.2635	0.9766	33.6N	173.4E	75	86	02m31s
06231	05	0616	May 21	08:10:42	4561	-17113	A	0.3438	0.9803	40.9N	72.2E	70	74	01m59s
06276	06	0634	Jun 01	14:54:37	4392	-16890	A	0.4246	0.9836	47.8N	27.7W	65	64	01m33s
06322	07	0652	Jun 11	21:39:10	4225	-16667	A	0.5057	0.9862	54.0N	125.7W	59	56	01m13s
06369	08	0670	Jun 23	04:26:06	4060	-16444	A	0.5856	0.9883	59.2N	138.4E	54	51	00m58s
06414	09	0688	Jul 03	11:17:17	3896	-16221	A	0.6632	0.9897	63.1N	44.4E	48	49	00m48s
06458	10	0706	Jul 14	18:13:55	3735	-15998	A	0.7372	0.9904	65.4N	48.4W	42	50	00m42s
06500	11	0724	Jul 25	01:16:50	3575	-15775	A	0.8066	0.9906	66.1N	141.6W	36	56	00m39s
06542	12	0742	Aug 05	08:27:12	3419	-15552	A	0.8707	0.9901	65.6N	122.9E	29	71	00m40s
06584	13	0760	Aug 15	15:46:22	3265	-15329	A	0.9284	0.9888	64.5N	24.9E	21	106	00m43s
06625	14	0778	Aug 26	23:14:42	3113	-15106	A	0.9795	0.9864	63.1N	71.8W	11	250	00m50s
06666	15	0796	Sep 06	06:51:48	2965	-14883	P	1.0242	0.9435	61.0N	172.4W	0		
06707	16	0814	Sep 17	14:39:24	2821	-14660	P	1.0612	0.8771	60.9N	61.4E	0		
06748	17	0832	Sep 27	22:36:40	2679	-14437	P	1.0908	0.8238	60.9N	67.2W	0		
06788	18	0850	Oct 09	06:43:55	2542	-14214	P	1.1133	0.7832	61.2N	161.7E	0		
06828	19	0868	Oct 19	14:59:08	2408	-13991	P	1.1302	0.7528	61.6N	28.6E	0		
06868	20	0886	Oct 30	23:23:09	2278	-13768	P	1.1408	0.7338	62.1N	106.8W	0		

06908	21	0904 Nov 10	07:53:36	2152 -13545	P	1.1471	0.7227	62.8N 116.0E	0
06948	22	0922 Nov 21	16:29:24	2031 -13322	P	1.1496	0.7185	63.6N 22.7W	0
06989	23	0940 Dec 02	01:09:04	1914 -13099	P	1.1498	0.7185	64.5N 162.7W	0
07030	24	0958 Dec 13	09:50:52	1802 -12876	P	1.1488	0.7206	65.5N 56.4E	0
07070	25	0976 Dec 23	18:33:17	1694 -12653	P	1.1481	0.7224	66.6N 85.0W	0
07112	26	0995 Jan 04	03:13:44	1590 -12430	P	1.1496	0.7206	67.7N 133.6E	0
07154	27	1013 Jan 14	11:52:21	1491 -12207	P	1.1531	0.7148	68.7N 7.9W	0
07196	28	1031 Jan 25	20:26:16	1397 -11984	P	1.1606	0.7018	69.7N 148.9W	0
07238	29	1049 Feb 05	04:54:51	1308 -11761	P	1.1733	0.6792	70.5N 70.9E	0
07282	30	1067 Feb 16	13:16:39	1223 -11538	P	1.1920	0.6453	71.2N 68.2W	0
07326	31	1085 Feb 26	21:32:13	1142 -11315	P	1.2162	0.6007	71.7N 153.8E	0
07371	32	1103 Mar 10	05:40:52	1066 -11092	P	1.2466	0.5440	71.9N 17.3E	0
07416	33	1121 Mar 20	13:41:29	995 -10869	P	1.2840	0.4736	71.8N 117.2W	0
07461	34	1139 Mar 31	21:35:42	927 -10646	P	1.3272	0.3913	71.6N 110.0E	0
07506	35	1157 Apr 11	05:23:00	864 -10423	P	1.3767	0.2964	71.1N 20.7W	0
07551	36	1175 Apr 22	13:04:58	804 -10200	P	1.4309	0.1916	70.4N 149.4W	0
07597	37	1193 May 02	20:41:06	749 -9977	Pe	1.4902	0.0765	69.6N 83.8E	0

SAROS SERIES

Saros series 87 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
												°	km
GREATEST													
ECLIPSE													

04580	-36	-0076	Feb 23	14:20:30	11322	-25675	Pb	1.5513	0.0121	61.3N	53.0W	0	
04625	-35	-0058	Mar 05	21:50:17	11130	-25452	P	1.5057	0.0889	61.0N	175.0W	0	
04670	-34	-0040	Mar 16	05:12:45	10942	-25229	P	1.4529	0.1791	60.8N	64.9E	0	
04716	-33	-0022	Mar 27	12:27:48	10756	-25006	P	1.3932	0.2829	60.7N	53.3W	0	
04762	-32	-0004	Apr 06	19:37:20	10572	-24783	P	1.3277	0.3983	60.9N	170.1W	0	
04807	-31	0014	Apr 18	02:41:51	10391	-24560	P	1.2571	0.5240	61.2N	74.2E	0	
04853	-30	0032	Apr 28	09:42:10	10211	-24337	P	1.1818	0.6596	61.6N	40.4W	0	
04899	-29	0050	May 09	16:39:47	10034	-24114	P	1.1028	0.8033	62.1N	154.6W	0	
04943	-28	0068	May 19	23:36:21	9858	-23891	P	1.0218	0.9519	62.8N	91.4E	0	
04987	-27	0086	May 31	06:33:47	9683	-23668	H	0.9401	1.0022	75.5N	24.1E	19	23 00m08s
05032	-26	0104	Jun 10	13:31:44	9510	-23445	H2	0.8576	1.0087	77.6N	34.9W	31	59 00m33s
05076	-25	0122	Jun 21	20:33:47	9337	-23222	T	0.7773	1.0136	74.0N	109.2W	39	75 00m55s
05120	-24	0140	Jul 02	03:39:41	9165	-22999	T	0.6994	1.0175	68.0N	159.3E	45	84 01m15s
05163	-23	0158	Jul 13	10:52:07	8994	-22776	T	0.6255	1.0206	61.3N	57.9E	51	90 01m33s
05204	-22	0176	Jul 23	18:09:39	8823	-22553	T	0.5550	1.0228	54.2N	48.8W	56	94 01m48s
05245	-21	0194	Aug 04	01:36:08	8652	-22330	T	0.4912	1.0245	47.0N	159.9W	60	96 02m02s
05286	-20	0212	Aug 14	09:10:09	8481	-22107	T	0.4330	1.0255	39.9N	85.7E	64	96 02m12s
05327	-19	0230	Aug 25	16:53:17	8310	-21884	T	0.3818	1.0261	32.9N	31.6W	67	96 02m20s
05368	-18	0248	Sep 05	00:45:17	8138	-21661	T	0.3372	1.0263	26.1N	151.6W	70	95 02m25s
05410	-17	0266	Sep 16	08:47:23	7966	-21438	T	0.3004	1.0264	19.7N	85.7E	72	94 02m29s
05450	-16	0284	Sep 26	16:58:52	7793	-21215	T	0.2710	1.0263	13.6N	39.4W	74	92 02m31s

05490	-15	0302	Oct 08	01:17:57	7619	-20992	T	0.2474	1.0263	7.9N	166.3W	76	92	02m34s
05529	-14	0320	Oct 18	09:46:09	7444	-20769	T	0.2308	1.0263	2.9N	64.8E	77	92	02m36s
05569	-13	0338	Oct 29	18:20:54	7269	-20546	T	0.2190	1.0266	1.6S	65.5W	77	92	02m39s
05609	-12	0356	Nov 09	03:02:18	7093	-20323	T	0.2122	1.0272	5.3S	162.9E	78	94	02m44s
05649	-11	0374	Nov 20	11:46:54	6916	-20100	T	0.2076	1.0283	8.3S	30.8E	78	98	02m51s
05690	-10	0392	Nov 30	20:35:47	6738	-19877	T	0.2060	1.0298	10.4S	102.1W	78	103	03m00s
05731	-09	0410	Dec 12	05:25:03	6560	-19654	T	0.2041	1.0318	11.7S	125.1E	78	110	03m11s
05772	-08	0428	Dec 22	14:14:19	6381	-19431	T	0.2019	1.0343	12.1S	7.5W	78	118	03m22s
05813	-07	0447	Jan 02	23:00:54	6203	-19208	T	0.1969	1.0373	11.8S	139.5W	79	128	03m35s
05855	-06	0465	Jan 13	07:44:43	6025	-18985	T	0.1892	1.0407	10.9S	89.1E	79	139	03m49s
05898	-05	0483	Jan 24	16:22:34	5848	-18762	T	0.1763	1.0446	9.4S	40.8W	80	151	04m03s
05942	-04	0501	Feb 04	00:54:51	5672	-18539	T	0.1585	1.0487	7.4S	169.5W	81	164	04m18s
05986	-03	0519	Feb 15	09:19:56	5495	-18316	T	0.1343	1.0530	5.2S	63.6E	82	177	04m33s
06030	-02	0537	Feb 25	17:38:41	5319	-18093	T	0.1043	1.0574	2.9S	61.7W	84	190	04m49s
06076	-01	0555	Mar 09	01:47:58	5144	-17870	T	0.0662	1.0618	0.7S	175.4E	86	203	05m05s
06122	00	0573	Mar 19	09:51:15	4971	-17647	Tm	0.0228	1.0659	1.5N	54.2E	89	215	05m22s
06168	01	0591	Mar 30	17:45:50	4799	-17424	T	-0.0281	1.0697	3.2N	64.8W	88	227	05m41s
06213	02	0609	Apr 10	01:35:40	4628	-17201	T	-0.0835	1.0730	4.5N	177.6E	85	238	06m00s
06258	03	0627	Apr 21	09:16:52	4459	-16978	T	-0.1462	1.0758	5.0N	62.3E	82	248	06m19s
06303	04	0645	May 01	16:55:24	4291	-16755	T	-0.2115	1.0779	4.7N	52.4W	78	257	06m38s
06350	05	0663	May 13	00:27:42	4125	-16532	T	-0.2818	1.0792	3.4N	165.7W	74	266	06m56s
06396	06	0681	May 23	07:58:17	3960	-16309	T	-0.3538	1.0797	1.2N	81.2E	69	274	07m10s
06440	07	0699	Jun 03	15:24:55	3798	-16086	T	-0.4291	1.0792	2.2S	31.3W	65	282	07m17s
06483	08	0717	Jun 13	22:52:28	3638	-15863	T	-0.5035	1.0779	6.5S	144.6W	60	291	07m15s
06526	09	0735	Jun 25	06:19:09	3480	-15640	T	-0.5781	1.0756	11.9S	101.6E	55	300	07m02s
06568	10	0753	Jul 05	13:47:40	3325	-15417	T	-0.6509	1.0725	18.1S	13.4W	49	310	06m38s
06609	11	0771	Jul 16	21:18:25	3173	-15194	T	-0.7214	1.0684	25.2S	129.8W	44	322	06m04s
06650	12	0789	Jul 27	04:53:37	3023	-14971	T	-0.7876	1.0636	32.9S	111.7E	38	338	05m22s

06691	13	0807 Aug 07	12:33:13	2877 -14748	T	-0.8498	1.0579	41.4S	9.4W	31	361	04m35s
06732	14	0825 Aug 17	20:18:04	2735 -14525	T	-0.9071	1.0515	50.7S	134.1W	24	406	03m46s
06772	15	0843 Aug 29	04:09:48	2595 -14302	T	-0.9582	1.0442	60.8S	94.1E	16	526	02m56s
06812	16	0861 Sep 08	12:08:25	2460 -14079	T-	-1.0032	1.0053	71.9S	70.3W			
06852	17	0879 Sep 19	20:14:10	2329 -13856	P	-1.0419	0.9299	72.0S	153.5E			
06892	18	0897 Sep 30	04:27:23	2202 -13633	P	-1.0742	0.8672	71.9S	15.5E			
06932	19	0915 Oct 11	12:48:25	2078 -13410	P	-1.0999	0.8174	71.5S	124.3W			
06973	20	0933 Oct 21	21:16:05	1960 -13187	P	-1.1197	0.7793	70.8S	94.8E			
07014	21	0951 Nov 02	05:48:45	1845 -12964	P	-1.1351	0.7496	70.0S	46.8W			
07055	22	0969 Nov 12	14:26:54	1736 -12741	P	-1.1457	0.7291	69.1S	170.8E			
07095	23	0987 Nov 23	23:08:42	1630 -12518	P	-1.1533	0.7145	68.0S	28.3E			
07137	24	1005 Dec 04	07:52:26	1530 -12295	P	-1.1589	0.7037	67.0S	114.2W			
07179	25	1023 Dec 15	16:36:13	1434 -12072	P	-1.1640	0.6940	65.9S	103.9E			
07221	26	1041 Dec 26	01:19:06	1343 -11849	P	-1.1695	0.6835	64.8S	37.3W			
07264	27	1060 Jan 06	09:59:33	1256 -11626	P	-1.1766	0.6704	63.9S	177.5W			
07308	28	1078 Jan 16	18:34:30	1174 -11403	P	-1.1878	0.6499	63.0S	44.1E			
07352	29	1096 Jan 28	03:04:32	1096 -11180	P	-1.2026	0.6230	62.3S	92.9W			
07398	30	1114 Feb 07	11:26:45	1022 -10957	P	-1.2234	0.5854	61.7S	132.3E			
07443	31	1132 Feb 18	19:41:35	953 -10734	P	-1.2495	0.5380	61.3S	0.4W			
07488	32	1150 Mar 01	03:46:23	888 -10511	P	-1.2835	0.4765	61.0S	130.6W			
07533	33	1168 Mar 11	11:43:09	827 -10288	P	-1.3232	0.4045	60.9S	101.3E			
07579	34	1186 Mar 22	19:29:34	770 -10065	P	-1.3708	0.3183	61.0S	24.2W			
07624	35	1204 Apr 02	03:06:26	717 -9842	P	-1.4253	0.2196	61.2S	147.4W			
07670	36	1222 Apr 13	10:33:58	667 -9619	Pe	-1.4863	0.1092	61.5S	91.7E			

SAROS SERIES

88

Saros series 88 contains 83 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
04182	-49	-0246	Oct 06	21:20:58	13293	-27770	Pb	-1.5237	0.0238	60.9S	176.1E	0	
04223	-48	-0228	Oct 17	05:57:25	13066	-27547	P	-1.5079	0.0539	61.1S	37.4E	0	
04264	-47	-0210	Oct 28	14:39:29	12844	-27324	P	-1.4962	0.0761	61.5S	102.9W	0	
04305	-46	-0192	Nov 07	23:26:28	12626	-27101	P	-1.4885	0.0906	62.1S	115.5E	0	
04347	-45	-0174	Nov 19	08:17:16	12412	-26878	P	-1.4838	0.0993	62.8S	27.2W	0	
04391	-44	-0156	Nov 29	17:10:43	12202	-26655	P	-1.4815	0.1033	63.6S	170.8W	0	
04433	-43	-0138	Dec 11	02:03:35	11995	-26432	P	-1.4787	0.1081	64.5S	45.5E	0	
04476	-42	-0120	Dec 21	10:55:43	11793	-26209	P	-1.4757	0.1131	65.5S	98.4W	0	
04519	-41	-0101	Jan 01	19:44:17	11594	-25986	P	-1.4699	0.1233	66.5S	118.1E	0	
04562	-40	-0083	Jan 12	04:29:23	11398	-25763	P	-1.4617	0.1379	67.6S	24.9W	0	
04607	-39	-0065	Jan 23	13:07:21	11205	-25540	P	-1.4482	0.1625	68.6S	166.7W	0	
04652	-38	-0047	Feb 02	21:40:10	11016	-25317	P	-1.4308	0.1946	69.6S	52.2E	0	
04697	-37	-0029	Feb 14	06:04:21	10829	-25094	P	-1.4069	0.2392	70.4S	87.3W	0	
04744	-36	-0011	Feb 24	14:21:12	10644	-24871	P	-1.3773	0.2949	71.0S	134.5E	0	

04789 -35 0007 Mar 07 22:28:54 10462 -24648 P -1.3406 0.3647 71.5S 1.9W 0

04835 -34 0025 Mar 18 06:29:39 10282 -24425 P -1.2985 0.4452 71.7S 136.8W 0

04881 -33 0043 Mar 29 14:22:23 10104 -24202 P -1.2502 0.5381 71.7S 90.2E 0

04926 -32 0061 Apr 08 22:07:32 9927 -23979 P -1.1958 0.6431 71.5S 40.7W 0

04970 -31 0079 Apr 20 05:46:38 9752 -23756 P -1.1365 0.7577 71.0S 169.8W 0

05015 -30 0097 Apr 30 13:19:49 9578 -23533 P -1.0723 0.8818 70.4S 63.1E 0

05059 -29 0115 May 11 20:48:54 9405 -23310 T- -1.0051 1.0117 69.6S 62.5W 0

05103 -28 0133 May 22 04:13:35 9233 -23087 T -0.9345 1.0601 48.9S 163.6E 20 562 04m32s

05147 -27 0151 Jun 02 11:36:59 9062 -22864 T -0.8630 1.0613 37.8S 45.5E 30 400 05m06s

05189 -26 0169 Jun 12 18:58:55 8891 -22641 T -0.7904 1.0610 29.2S 69.8W 38 328 05m25s

05229 -25 0187 Jun 24 02:20:57 8720 -22418 T -0.7183 1.0595 22.2S 176.2E 44 281 05m31s

05270 -24 0205 Jul 04 09:44:16 8549 -22195 T -0.6478 1.0570 16.7S 62.7E 50 246 05m23s

05311 -23 0223 Jul 15 17:10:13 8377 -21972 T -0.5800 1.0536 12.5S 50.7W 54 216 05m05s

05352 -22 0241 Jul 26 00:40:00 8206 -21749 T -0.5160 1.0495 9.7S 164.5W 59 190 04m40s

05393 -21 0259 Aug 06 08:13:39 8034 -21526 T -0.4558 1.0447 8.0S 81.0E 63 166 04m09s

05434 -20 0277 Aug 16 15:53:34 7861 -21303 T -0.4014 1.0395 7.6S 34.9W 66 143 03m37s

05474 -19 0295 Aug 27 23:39:35 7688 -21080 T -0.3527 1.0338 8.2S 152.1W 69 121 03m03s

05513 -18 0313 Sep 07 07:32:57 7513 -20857 T -0.3108 1.0280 9.8S 88.7E 72 99 02m30s

05553 -17 0331 Sep 18 15:33:09 7338 -20634 T -0.2754 1.0221 12.1S 32.1W 74 78 01m58s

05593 -16 0349 Sep 28 23:41:03 7162 -20411 H3 -0.2467 1.0163 15.0S 154.9W 76 57 01m27s

05633 -15 0367 Oct 10 07:55:49 6986 -20188 H -0.2245 1.0105 18.3S 80.7E 77 37 00m57s

05674 -14 0385 Oct 20 16:16:17 6808 -19965 H -0.2077 1.0052 21.7S 44.9W 78 18 00m28s

05715 -13 0403 Nov 01 00:43:05 6630 -19742 H -0.1968 1.0001 25.1S 171.8W 79 1 00m01s

05756 -12 0421 Nov 11 09:13:49 6452 -19519 A -0.1901 0.9956 28.3S 60.7E 79 16 00m25s

05797 -11 0439 Nov 22 17:48:16 6273 -19296 A -0.1870 0.9916 31.1S 67.3W 79 30 00m48s

05838 -10 0457 Dec 03 02:22:23 6095 -19073 A -0.1844 0.9882 33.0S 165.4E 79 42 01m09s

05881 -09 0475 Dec 14 10:57:44 5918 -18850 A -0.1835 0.9854 34.1S 38.2E 79 53 01m27s

05924 -08 0493 Dec 24 19:30:00 5741 -18627 Am -0.1813 0.9831 34.1S 88.2W 79 61 01m43s

05968	-07	0512	Jan 05	03:59:03	5564	-18404	A	-0.1769	0.9815	33.0S	146.1E	80	67	01m55s
06013	-06	0530	Jan 15	12:21:32	5388	-18181	A	-0.1682	0.9802	30.6S	21.6E	80	71	02m05s
06058	-05	0548	Jan 26	20:38:16	5213	-17958	A	-0.1553	0.9794	27.2S	102.2W	81	74	02m12s
06104	-04	0566	Feb 06	04:46:17	5039	-17735	A	-0.1361	0.9790	22.8S	135.5E	82	75	02m17s
06150	-03	0584	Feb 17	12:45:26	4866	-17512	A	-0.1105	0.9788	17.5S	14.7E	84	76	02m21s
06195	-02	0602	Feb 27	20:34:40	4695	-17289	A	-0.0774	0.9787	11.6S	104.3W	85	76	02m23s
06240	-01	0620	Mar 10	04:14:30	4525	-17066	A	-0.0373	0.9787	5.1S	138.5E	88	76	02m25s
06285	00	0638	Mar 21	11:43:16	4357	-16843	A	0.0112	0.9786	1.9N	23.8E	89	76	02m27s
06331	01	0656	Mar 31	19:02:49	4190	-16620	A	0.0666	0.9783	9.2N	88.7W	86	77	02m29s
06377	02	0674	Apr 12	02:12:24	4025	-16397	A	0.1295	0.9778	16.8N	161.4E	82	80	02m31s
06422	03	0692	Apr 22	09:14:36	3862	-16174	A	0.1975	0.9769	24.5N	53.6E	78	84	02m35s
06466	04	0710	May 03	16:06:47	3701	-15951	A	0.2731	0.9755	32.3N	51.2W	74	91	02m38s
06509	05	0728	May 13	22:54:08	3542	-15728	A	0.3517	0.9737	39.9N	153.9W	69	101	02m43s
06551	06	0746	May 25	05:34:14	3386	-15505	A	0.4356	0.9713	47.5N	106.5E	64	114	02m48s
06593	07	0764	Jun 04	12:12:18	3232	-15282	A	0.5199	0.9685	54.5N	9.5E	58	133	02m55s
06634	08	0782	Jun 15	18:45:24	3082	-15059	A	0.6075	0.9649	61.0N	83.3W	52	160	03m02s
06675	09	0800	Jun 26	01:19:56	2935	-14836	A	0.6928	0.9608	66.4N	171.9W	46	198	03m11s
06716	10	0818	Jul 07	07:53:36	2790	-14613	A	0.7782	0.9561	70.2N	105.9E	39	256	03m22s
06756	11	0836	Jul 17	14:30:27	2650	-14390	A	0.8599	0.9508	71.6N	29.0E	30	354	03m34s
06796	12	0854	Jul 28	21:09:52	2513	-14167	A	0.9386	0.9444	70.2N	43.9W	20	603	03m47s
06836	13	0872	Aug 08	03:55:30	2380	-13944	A+	1.0114	0.9437	61.9N	108.0W	0		
06876	14	0890	Aug 19	10:47:01	2251	-13721	P	1.0789	0.8268	61.4N	139.8E	0		
06916	15	0908	Aug 29	17:45:24	2126	-13498	P	1.1402	0.7214	61.0N	25.9E	0		
06956	16	0926	Sep 10	00:52:08	2006	-13275	P	1.1941	0.6293	60.8N	89.9W	0		
06998	17	0944	Sep 20	08:07:18	1890	-13052	P	1.2406	0.5505	60.8N	152.2E	0		
07039	18	0962	Oct 01	15:31:30	1778	-12829	P	1.2793	0.4853	60.9N	32.1E	0		
07079	19	0980	Oct 11	23:03:22	1671	-12606	P	1.3115	0.4317	61.2N	90.0W	0		
07121	20	0998	Oct 23	06:43:47	1569	-12383	P	1.3365	0.3902	61.6N	145.7E	0		

07163	21	1016	Nov 02	14:30:40	1471 -12160	P	1.3559	0.3582	62.3N	19.7E	0
07205	22	1034	Nov 13	22:23:18	1378 -11937	P	1.3704	0.3345	63.0N	107.9W	0
07248	23	1052	Nov 24	06:20:27	1289 -11714	P	1.3809	0.3173	63.9N	123.1E	0
07291	24	1070	Dec 05	14:20:57	1205 -11491	P	1.3881	0.3054	64.8N	7.0W	0
07335	25	1088	Dec 15	22:22:23	1126 -11268	P	1.3947	0.2944	65.9N	137.8W	0
07381	26	1106	Dec 27	06:22:57	1051 -11045	P	1.4019	0.2823	67.0N	91.3E	0
07426	27	1125	Jan 06	14:21:29	980 -10822	P	1.4106	0.2676	68.1N	39.7W	0
07471	28	1143	Jan 17	22:16:50	914 -10599	P	1.4214	0.2491	69.1N	170.4W	0
07516	29	1161	Jan 28	06:05:42	851 -10376	P	1.4375	0.2214	70.1N	59.8E	0
07561	30	1179	Feb 08	13:48:49	792 -10153	P	1.4582	0.1860	70.9N	69.2W	0
07606	31	1197	Feb 18	21:23:51	737 -9930	P	1.4855	0.1390	71.5N	163.4E	0
07651	32	1215	Mar 02	04:52:15	686 -9707	P	1.5180	0.0828	71.8N	37.1E	0
07697	33	1233	Mar 12	12:10:19	638 -9484	Pe	1.5587	0.0121	72.0N	86.7W	0

SAROS SERIES

89

Saros series 89 contains 73 solar eclipses.

NUM.	NUM.	DATE	OF	s	NUM.	TYPE	MAG.	°	°	ALT	WIDTH	DUR.
										GREATEST	°	km
ECLIPSE												

04817	-33	0018 Feb 04	20:20:34	10353	-24513	Pb	1.5494	0.0205	62.2N	132.7W	0	
04863	-32	0036 Feb 16	04:03:39	10174	-24290	P	1.5240	0.0641	61.7N	101.8E	0	
04908	-31	0054 Feb 26	11:35:35	9996	-24067	P	1.4903	0.1220	61.2N	20.8W	0	
04952	-30	0072 Mar 08	18:58:25	9821	-23844	P	1.4497	0.1916	60.9N	140.9W	0	
04996	-29	0090 Mar 20	02:09:19	9646	-23621	P	1.3998	0.2774	60.8N	101.9E	0	
05041	-28	0108 Mar 30	09:12:09	9473	-23398	P	1.3438	0.3738	60.8N	13.2W	0	
05085	-27	0126 Apr 10	16:04:42	9301	-23175	P	1.2800	0.4837	61.0N	125.8W	0	
05129	-26	0144 Apr 20	22:49:07	9129	-22952	P	1.2098	0.6047	61.3N	123.6E	0	
05172	-25	0162 May 02	05:26:00	8958	-22729	P	1.1337	0.7359	61.8N	14.9E	0	
05213	-24	0180 May 12	11:57:30	8787	-22506	P	1.0536	0.8738	62.4N	92.7W	0	
05254	-23	0198 May 23	18:24:58	8616	-22283	A	0.9702	0.9440	71.7N	172.1W	13	892 03m34s
05295	-22	0216 Jun 03	00:48:22	8445	-22060	A	0.8836	0.9464	76.5N	137.3E	28	426 03m48s
05336	-21	0234 Jun 14	07:11:48	8274	-21837	A	0.7974	0.9469	74.4N	76.6E	37	326 04m05s
05377	-20	0252 Jun 24	13:35:01	8102	-21614	A	0.7112	0.9466	68.9N	0.1W	44	281 04m27s
05418	-19	0270 Jul 05	20:00:46	7929	-21391	A	0.6271	0.9456	62.2N	87.5W	51	258 04m54s
05458	-18	0288 Jul 16	02:29:07	7756	-21168	A	0.5451	0.9441	54.9N	179.3E	57	247 05m26s
05498	-17	0306 Jul 27	09:03:59	7582	-20945	A	0.4683	0.9422	47.5N	81.8E	62	242 06m03s
05537	-16	0324 Aug 06	15:44:50	7407	-20722	A	0.3967	0.9399	39.9N	18.8W	66	243 06m42s
05577	-15	0342 Aug 17	22:33:14	7232	-20499	A	0.3313	0.9374	32.4N	122.3W	70	246 07m21s
05617	-14	0360 Aug 28	05:30:14	7055	-20276	A	0.2727	0.9348	25.1N	131.5E	74	252 07m59s
05658	-13	0378 Sep 08	12:37:19	6878	-20053	A	0.2222	0.9322	18.0N	22.5E	77	259 08m35s
05699	-12	0396 Sep 18	19:53:40	6700	-19830	A	0.1792	0.9297	11.2N	88.9W	80	267 09m07s
05740	-11	0414 Sep 30	03:19:02	6522	-19607	A	0.1434	0.9274	4.9N	157.5E	82	275 09m35s
05781	-10	0432 Oct 10	10:53:48	6344	-19384	A	0.1154	0.9254	1.0S	41.8E	83	283 10m00s
05821	-09	0450 Oct 21	18:37:15	6165	-19161	A	0.0940	0.9238	6.2S	75.7W	85	289 10m20s

05863	-08	0468	Nov 01	02:27:24	5988	-18938	A	0.0780	0.9227	10.8S	165.5E	86	293	10m34s
05906	-07	0486	Nov 12	10:24:14	5811	-18715	A	0.0672	0.9221	14.6S	45.6E	86	295	10m43s
05950	-06	0504	Nov 22	18:25:08	5634	-18492	A	0.0592	0.9222	17.6S	75.0W	87	295	10m41s
05994	-05	0522	Dec 04	02:29:54	5457	-18269	A	0.0543	0.9229	19.7S	163.9E	87	292	10m31s
06039	-04	0540	Dec 14	10:34:02	5282	-18046	A	0.0482	0.9243	20.9S	43.2E	87	286	10m10s
06086	-03	0558	Dec 25	18:39:21	5107	-17823	A	0.0427	0.9263	21.2S	77.7W	88	278	09m41s
06132	-02	0577	Jan 05	02:41:04	4934	-17600	A	0.0334	0.9290	20.7S	162.3E	88	266	09m03s
06178	-01	0595	Jan 16	10:39:56	4762	-17377	A	0.0214	0.9324	19.5S	42.9E	89	253	08m20s
06223	00	0613	Jan 26	18:31:59	4592	-17154	A	0.0030	0.9363	17.9S	74.9W	90	237	07m35s
06268	01	0631	Feb 07	02:19:34	4423	-16931	A	-0.0196	0.9407	15.8S	168.2E	89	220	06m49s
06313	02	0649	Feb 17	09:59:12	4256	-16708	A	-0.0499	0.9455	13.6S	53.2E	87	201	06m05s
06360	03	0667	Feb 28	17:31:36	4090	-16485	Am	-0.0868	0.9506	11.3S	60.1W	85	182	05m23s
06405	04	0685	Mar 11	00:55:43	3926	-16262	A	-0.1313	0.9559	9.2S	171.3W	82	162	04m44s
06449	05	0703	Mar 22	08:13:08	3764	-16039	A	-0.1819	0.9612	7.5S	79.2E	79	143	04m08s
06492	06	0721	Apr 01	15:23:02	3604	-15816	A	-0.2396	0.9666	6.3S	28.5W	76	124	03m34s
06534	07	0739	Apr 12	22:26:36	3447	-15593	A	-0.3033	0.9717	5.9S	134.5W	72	106	03m03s
06576	08	0757	Apr 23	05:24:52	3293	-15370	A	-0.3722	0.9766	6.3S	120.8E	68	89	02m34s
06617	09	0775	May 04	12:19:13	3141	-15147	A	-0.4448	0.9812	7.7S	16.8E	64	74	02m06s
06659	10	0793	May 14	19:09:27	2992	-14924	A	-0.5216	0.9852	10.3S	86.4W	58	61	01m41s
06700	11	0811	May 26	01:59:01	2847	-14701	A	-0.5998	0.9887	14.1S	170.1E	53	49	01m17s
06741	12	0829	Jun 05	08:47:46	2705	-14478	A	-0.6791	0.9916	19.2S	66.2E	47	40	00m57s
06780	13	0847	Jun 16	15:39:22	2567	-14255	A	-0.7570	0.9937	25.5S	39.1W	41	34	00m42s
06820	14	0865	Jun 26	22:31:49	2432	-14032	A	-0.8348	0.9949	33.5S	145.7W	33	32	00m31s
06860	15	0883	Jul 08	05:30:38	2302	-13809	A	-0.9080	0.9951	43.3S	104.5E	24	41	00m27s
06900	16	0901	Jul 18	12:33:26	2175	-13586	A	-0.9786	0.9934	58.0S	10.5W	11	119	00m32s
06940	17	0919	Jul 29	19:44:05	2053	-13363	P	-1.0437	0.9112	69.6S	136.8W	0		
06981	18	0937	Aug 09	03:00:57	1935	-13140	P	-1.1044	0.8013	70.4S	101.0E	0		
07022	19	0955	Aug 20	10:27:56	1822	-12917	P	-1.1576	0.7047	71.1S	24.3W	0		

07063	20	0973	Aug 30	18:03:13	1713	-12694	P	-1.2046	0.6191	71.6S	152.2W	0
07104	21	0991	Sep 11	01:47:57	1609	-12471	P	-1.2447	0.5462	71.8S	77.3E	0
07146	22	1009	Sep 21	09:42:23	1509	-12248	P	-1.2777	0.4860	71.9S	55.9W	0
07188	23	1027	Oct 02	17:46:43	1414	-12025	P	-1.3036	0.4389	71.7S	168.6E	0
07230	24	1045	Oct 13	01:59:57	1324	-11802	P	-1.3229	0.4038	71.2S	31.1E	0
07274	25	1063	Oct 24	10:20:36	1238	-11579	P	-1.3370	0.3782	70.6S	107.7W	0
07318	26	1081	Nov 03	18:49:33	1157	-11356	P	-1.3451	0.3634	69.7S	112.0E	0
07363	27	1099	Nov 15	03:24:19	1080	-11133	P	-1.3496	0.3551	68.8S	29.2W	0
07408	28	1117	Nov 25	12:04:12	1008	-10910	P	-1.3506	0.3531	67.8S	170.9W	0
07453	29	1135	Dec 06	20:46:56	939	-10687	P	-1.3503	0.3536	66.7S	47.1E	0
07498	30	1153	Dec 17	05:32:01	875	-10464	P	-1.3488	0.3560	65.7S	94.9W	0
07543	31	1171	Dec 28	14:16:40	815	-10241	P	-1.3484	0.3564	64.7S	123.7E	0
07589	32	1190	Jan 07	22:59:43	759	-10018	P	-1.3501	0.3528	63.7S	16.9W	0
07634	33	1208	Jan 19	07:39:49	706	-9795	P	-1.3551	0.3431	62.9S	156.5W	0
07680	34	1226	Jan 29	16:15:54	657	-9572	P	-1.3640	0.3259	62.3S	65.2E	0
07725	35	1244	Feb 10	00:45:37	611	-9349	P	-1.3786	0.2979	61.7S	71.4W	0
07769	36	1262	Feb 20	09:09:20	568	-9126	P	-1.3986	0.2595	61.4S	153.7E	0
07813	37	1280	Mar 02	17:25:39	528	-8903	P	-1.4251	0.2084	61.1S	20.7E	0
07856	38	1298	Mar 14	01:35:41	490	-8680	P	-1.4573	0.1459	61.1S	110.7W	0
07898	39	1316	Mar 24	09:36:47	455	-8457	Pe	-1.4970	0.0686	61.2S	120.1E	0

SAROS SERIES

Saros series 90 contains 83 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
04443	-37	-0134 Sep 28	15:55:39	11952	-26385	Pb	-1.5411	0.0433	60.7S	102.3W	0		
04486	-36	-0116 Oct 08	23:39:19	11751	-26162	P	-1.5142	0.0890	60.8S	132.3E	0		
04529	-35	-0098 Oct 20	07:32:27	11552	-25939	P	-1.4940	0.1233	61.1S	4.5E	0		
04572	-34	-0080 Oct 30	15:31:59	11357	-25716	P	-1.4782	0.1498	61.5S	124.9W	0		
04617	-33	-0062 Nov 10	23:38:44	11165	-25493	P	-1.4676	0.1675	62.2S	103.7E	0		
04662	-32	-0044 Nov 21	07:49:10	10976	-25270	P	-1.4592	0.1812	62.9S	28.8W	0		
04708	-31	-0026 Dec 02	16:02:20	10790	-25047	P	-1.4526	0.1916	63.8S	162.3W	0		
04754	-30	-0008 Dec 13	00:16:16	10605	-24824	P	-1.4460	0.2020	64.7S	63.8E	0		
04799	-29	0010 Dec 24	08:29:33	10424	-24601	P	-1.4384	0.2138	65.8S	70.4W	0		
04845	-28	0029 Jan 03	16:40:00	10244	-24378	P	-1.4276	0.2309	66.9S	155.7E	0		
04891	-27	0047 Jan 15	00:46:09	10066	-24155	P	-1.4127	0.2553	68.0S	22.4E	0		
04935	-26	0065 Jan 25	08:47:30	9890	-23932	P	-1.3930	0.2879	69.0S	110.4W	0		
04979	-25	0083 Feb 05	16:42:51	9715	-23709	P	-1.3681	0.3299	69.9S	117.8E	0		
05024	-24	0101 Feb 16	00:30:33	9542	-23486	P	-1.3358	0.3853	70.7S	12.8W	0		
05068	-23	0119 Feb 27	08:11:25	9369	-23263	P	-1.2970	0.4527	71.4S	142.2W	0		
05112	-22	0137 Mar 09	15:44:51	9197	-23040	P	-1.2511	0.5335	71.8S	89.9E	0		
05156	-21	0155 Mar 20	23:12:18	9026	-22817	P	-1.1993	0.6259	71.9S	36.8W	0		

05197 -20 0173 Mar 31 06:31:47 8855 -22594 P -1.1400 0.7329 71.9S 161.5W 0
 05238 -19 0191 Apr 11 13:46:44 8684 -22371 P -1.0759 0.8499 71.5S 75.1E 0
 05279 -18 0209 Apr 21 20:55:53 8513 -22148 P -1.0056 0.9794 71.0S 46.4W 0
 05320 -17 0227 May 03 04:02:14 8341 -21925 H -0.9320 1.0011 51.9S 172.2E 21 10 00m05s
 05361 -16 0245 May 13 11:05:04 8170 -21702 H2 -0.8543 1.0086 39.9S 56.8E 31 57 00m48s
 05402 -15 0263 May 24 18:08:00 7997 -21479 T -0.7755 1.0151 30.1S 55.0W 39 82 01m30s
 05442 -14 0281 Jun 04 01:11:00 7825 -21256 T -0.6954 1.0205 21.7S 165.1W 46 97 02m08s
 05482 -13 0299 Jun 15 08:15:24 7651 -21033 T -0.6154 1.0251 14.6S 85.6E 52 108 02m40s
 05521 -12 0317 Jun 25 15:23:13 7477 -20810 T -0.5370 1.0288 8.7S 23.8W 57 116 03m04s
 05561 -11 0335 Jul 06 22:34:59 7301 -20587 T -0.4608 1.0319 4.0S 133.3W 63 121 03m20s
 05601 -10 0353 Jul 17 05:53:15 7125 -20364 T -0.3890 1.0341 0.6S 116.0E 67 124 03m27s
 05641 -09 0371 Jul 28 13:16:47 6948 -20141 T -0.3207 1.0357 1.6N 4.5E 71 126 03m30s
 05683 -08 0389 Aug 07 20:49:26 6771 -19918 T -0.2590 1.0366 2.6N 109.1W 75 127 03m28s
 05724 -07 0407 Aug 19 04:29:24 6593 -19695 T -0.2024 1.0371 2.5N 135.6E 78 127 03m24s
 05765 -06 0425 Aug 29 12:19:01 6414 -19472 T -0.1534 1.0371 1.3N 17.8E 81 126 03m19s
 05806 -05 0443 Sep 09 20:16:39 6236 -19249 T -0.1104 1.0368 0.5S 102.1W 84 124 03m14s
 05847 -04 0461 Sep 20 04:24:35 6058 -19026 T -0.0755 1.0364 3.1S 135.2E 86 123 03m09s
 05890 -03 0479 Oct 01 12:40:26 5880 -18803 T -0.0466 1.0358 6.0S 10.6E 87 121 03m06s
 05933 -02 0497 Oct 11 21:04:41 5704 -18580 T -0.0243 1.0354 9.2S 116.2W 89 119 03m04s
 05977 -01 0515 Oct 23 05:36:13 5527 -18357 T -0.0076 1.0351 12.5S 115.2E 89 118 03m04s
 06021 00 0533 Nov 02 14:15:16 5351 -18134 T 0.0028 1.0350 15.6S 15.0W 90 118 03m06s
 06067 01 0551 Nov 13 22:58:50 5176 -17911 T 0.0101 1.0354 18.4S 146.1W 90 119 03m10s
 06113 02 0569 Nov 24 07:46:44 5002 -17688 T 0.0140 1.0361 20.6S 82.0E 89 121 03m17s
 06160 03 0587 Dec 05 16:36:28 4830 -17465 T 0.0167 1.0373 22.1S 50.1W 89 125 03m26s
 06205 04 0605 Dec 16 01:28:09 4659 -17242 Tm 0.0181 1.0389 22.7S 177.6E 89 131 03m37s
 06250 05 0623 Dec 27 10:17:25 4490 -17019 T 0.0217 1.0412 22.2S 45.8E 89 138 03m51s
 06295 06 0642 Jan 06 19:05:52 4321 -16796 T 0.0263 1.0437 20.8S 85.9W 89 146 04m06s
 06341 07 0660 Jan 18 03:49:03 4155 -16573 T 0.0354 1.0468 18.2S 143.3E 88 156 04m22s

06387	08	0678	Jan 28	12:28:34	3990	-16350	T	0.0480	1.0501	14.8S	13.0E	87	166	04m40s
06431	09	0696	Feb 08	20:59:58	3828	-16127	T	0.0674	1.0537	10.3S	115.8W	86	178	04m58s
06474	10	0714	Feb 19	05:26:24	3667	-15904	T	0.0914	1.0574	5.2S	116.1E	85	190	05m15s
06517	11	0732	Mar 01	13:43:50	3509	-15681	T	0.1226	1.0611	0.7N	10.2W	83	202	05m32s
06559	12	0750	Mar 12	21:54:22	3353	-15458	T	0.1600	1.0647	7.0N	135.1W	81	214	05m46s
06601	13	0768	Mar 23	05:55:58	3200	-15235	T	0.2050	1.0679	13.9N	102.1E	78	226	05m56s
06642	14	0786	Apr 03	13:51:28	3051	-15012	T	0.2552	1.0709	21.0N	19.3W	75	238	06m02s
06684	15	0804	Apr 13	21:39:23	2904	-14789	T	0.3118	1.0732	28.3N	138.5W	72	250	06m03s
06725	16	0822	Apr 25	05:20:58	2761	-14566	T	0.3737	1.0750	35.8N	104.2E	68	262	05m58s
06765	17	0840	May 05	12:57:06	2621	-14343	T	0.4402	1.0759	43.3N	11.0W	64	274	05m46s
06805	18	0858	May 16	20:29:15	2485	-14120	T	0.5102	1.0760	50.7N	124.0W	59	287	05m30s
06845	19	0876	May 27	03:57:56	2353	-13897	T	0.5830	1.0753	57.9N	125.9E	54	301	05m10s
06885	20	0894	Jun 07	11:24:26	2225	-13674	T	0.6575	1.0736	64.6N	19.5E	49	318	04m47s
06925	21	0912	Jun 17	18:50:25	2101	-13451	T	0.7322	1.0708	70.4N	81.2W	43	340	04m21s
06965	22	0930	Jun 29	02:17:19	1981	-13228	T	0.8061	1.0671	74.4N	173.2W	36	372	03m55s
07006	23	0948	Jul 09	09:44:37	1866	-13005	T	0.8793	1.0621	75.4N	104.3E	28	431	03m27s
07047	24	0966	Jul 20	17:15:22	1755	-12782	T	0.9492	1.0556	72.4N	23.0E	18	597	02m55s
07087	25	0984	Jul 31	00:49:12	1649	-12559	P	1.0161	0.9871	62.4N	58.3W	0		
07129	26	1002	Aug 11	08:28:52	1548	-12336	P	1.0778	0.8675	61.8N	177.3E	0		
07171	27	1020	Aug 21	16:12:38	1451	-12113	P	1.1354	0.7563	61.4N	52.1E	0		
07213	28	1038	Sep 02	00:04:02	1359	-11890	P	1.1865	0.6587	61.1N	74.9W	0		
07256	29	1056	Sep 12	08:01:37	1271	-11667	P	1.2319	0.5725	60.9N	156.7E	0		
07300	30	1074	Sep 23	16:06:44	1188	-11444	P	1.2706	0.4998	60.9N	26.4E	0		
07344	31	1092	Oct 04	00:18:28	1110	-11221	P	1.3034	0.4387	61.1N	105.6W	0		
07390	32	1110	Oct 15	08:37:44	1036	-10998	P	1.3297	0.3905	61.4N	120.6E	0		
07435	33	1128	Oct 25	17:03:22	966	-10775	P	1.3504	0.3528	61.9N	15.0W	0		
07480	34	1146	Nov 06	01:33:49	900	-10552	P	1.3669	0.3233	62.6N	151.9W	0		
07525	35	1164	Nov 16	10:09:43	838	-10329	P	1.3785	0.3027	63.4N	69.7E	0		

07571	36	1182	Nov 27	18:48:43	780	-10106	P	1.3869	0.2883	64.3N	69.8W	0
07616	37	1200	Dec 08	03:30:03	726	-9883	P	1.3933	0.2771	65.3N	149.9E	0
07661	38	1218	Dec 19	12:10:11	676	-9660	P	1.4002	0.2653	66.3N	9.4E	0
07707	39	1236	Dec 29	20:49:58	628	-9437	P	1.4069	0.2537	67.4N	131.4W	0
07752	40	1255	Jan 10	05:25:56	584	-9214	P	1.4160	0.2376	68.5N	88.1E	0
07796	41	1273	Jan 20	13:57:10	543	-8991	P	1.4282	0.2159	69.5N	51.8W	0
07839	42	1291	Jan 31	22:21:43	504	-8768	P	1.4452	0.1856	70.4N	169.4E	0
07881	43	1309	Feb 11	06:39:24	468	-8545	P	1.4670	0.1465	71.1N	31.7E	0
07923	44	1327	Feb 22	14:47:53	435	-8322	P	1.4956	0.0953	71.6N	104.3W	0
07964	45	1345	Mar 04	22:47:14	403	-8099	Pe	1.5306	0.0325	71.9N	121.7E	0

SAROS SERIES

91

Saros series 91 contains 75 solar eclipses.

[illegible]

04382	-40	-0159	Aug 06	16:17:02	12240	-26696	Pb	1.5260	0.0126	69.4N	137.1E	0
04425	-39	-0141	Aug 18	00:07:27	12033	-26473	P	1.4734	0.1129	70.2N	6.2E	0
04468	-38	-0123	Aug 28	08:05:47	11830	-26250	P	1.4272	0.2012	70.9N	127.3W	0
04511	-37	-0105	Sep 08	16:13:09	11630	-26027	P	1.3881	0.2759	71.4N	96.5E	0
04554	-36	-0087	Sep 19	00:29:08	11434	-25804	P	1.3559	0.3372	71.7N	42.3W	0
04599	-35	-0069	Sep 30	08:52:47	11241	-25581	P	1.3300	0.3866	71.8N	176.8E	0
04644	-34	-0051	Oct 10	17:24:36	11050	-25358	P	1.3105	0.4235	71.6N	33.9E	0
04689	-33	-0033	Oct 22	02:03:25	10863	-25135	P	1.2967	0.4498	71.1N	110.4W	0
04736	-32	-0015	Nov 01	10:48:19	10678	-24912	P	1.2881	0.4661	70.4N	104.3E	0
04781	-31	0003	Nov 12	19:36:29	10495	-24689	P	1.2822	0.4772	69.6N	41.2W	0
04827	-30	0021	Nov 23	04:28:42	10315	-24466	P	1.2797	0.4820	68.6N	172.9E	0
04873	-29	0039	Dec 04	13:22:13	10136	-24243	P	1.2781	0.4850	67.5N	27.3E	0
04918	-28	0057	Dec 14	22:15:33	9959	-24020	P	1.2766	0.4881	66.5N	117.6W	0
04962	-27	0075	Dec 26	07:06:47	9784	-23797	P	1.2734	0.4942	65.4N	98.4E	0
05006	-26	0094	Jan 05	15:55:02	9610	-23574	P	1.2679	0.5046	64.4N	44.3W	0
05051	-25	0112	Jan 17	00:38:49	9437	-23351	P	1.2589	0.5217	63.5N	174.4E	0
05095	-24	0130	Jan 27	09:15:57	9265	-23128	P	1.2446	0.5488	62.7N	35.1E	0
05139	-23	0148	Feb 07	17:46:55	9093	-22905	P	1.2255	0.5854	62.0N	102.4W	0
05181	-22	0166	Feb 18	02:09:50	8922	-22682	P	1.2001	0.6340	61.5N	122.2E	0
05222	-21	0184	Feb 29	10:24:45	8751	-22459	P	1.1684	0.6947	61.1N	11.0W	0
05263	-20	0202	Mar 11	18:30:53	8580	-22236	P	1.1299	0.7688	60.9N	142.0W	0
05304	-19	0220	Mar 22	02:29:25	8409	-22013	P	1.0855	0.8543	60.8N	88.9E	0
05345	-18	0238	Apr 02	10:19:52	8237	-21790	P	1.0347	0.9523	60.9N	38.1W	0
05386	-17	0256	Apr 12	18:02:10	8065	-21567	T	0.9776	1.0522	62.9N	139.0W	11 857 02m50s
05427	-16	0274	Apr 24	01:38:24	7893	-21344	T	0.9159	1.0564	63.5N	124.8E	23 463 03m14s
05467	-15	0292	May 04	09:08:37	7720	-21121	T	0.8497	1.0586	63.9N	24.2E	31 364 03m29s
05506	-14	0310	May 15	16:34:57	7545	-20898	T	0.7804	1.0596	63.9N	76.4W	38 313 03m41s
05545	-13	0328	May 25	23:56:30	7370	-20675	T	0.7077	1.0596	63.0N	175.9W	45 277 03m50s

05585	-12	0346	Jun 06	07:17:19	7195	-20452	T	0.6346	1.0586	60.9N	83.5E	50	250	03m58s
05625	-11	0364	Jun 16	14:36:12	7018	-20229	T	0.5608	1.0566	57.4N	18.6W	56	226	04m02s
05666	-10	0382	Jun 27	21:55:37	6841	-20006	T	0.4878	1.0538	52.9N	123.1W	61	204	04m03s
05707	-09	0400	Jul 08	05:16:04	6663	-19783	T	0.4163	1.0502	47.5N	129.9E	65	183	04m00s
05749	-08	0418	Jul 19	12:39:47	6485	-19560	T	0.3481	1.0459	41.5N	20.4E	69	163	03m52s
05790	-07	0436	Jul 29	20:07:35	6306	-19337	T	0.2842	1.0409	35.1N	91.5W	73	143	03m37s
05830	-06	0454	Aug 10	03:39:07	6128	-19114	T	0.2243	1.0355	28.5N	154.6E	77	122	03m17s
05873	-05	0472	Aug 20	11:17:31	5950	-18891	T	0.1710	1.0296	21.8N	38.5E	80	102	02m50s
05916	-04	0490	Aug 31	19:01:26	5774	-18668	T	0.1232	1.0235	15.1N	79.5W	83	81	02m19s
05960	-03	0508	Sep 11	02:53:05	5597	-18445	H3	0.0826	1.0173	8.6N	160.4E	85	59	01m45s
06004	-02	0526	Sep 22	10:50:19	5420	-18222	H	0.0476	1.0111	2.3N	38.9E	87	38	01m08s
06049	-01	0544	Oct 02	18:56:04	5245	-17999	H	0.0206	1.0050	3.5S	84.5W	89	17	00m31s
06095	00	0562	Oct 14	03:07:26	5071	-17776	A	-0.0010	0.9992	9.0S	150.9E	90	3	00m05s
06141	01	0580	Oct 24	11:25:33	4898	-17553	A	-0.0163	0.9938	13.9S	25.2E	89	22	00m40s
06187	02	0598	Nov 04	19:48:16	4726	-17330	A	-0.0271	0.9888	18.0S	101.3W	88	40	01m13s
06232	03	0616	Nov 15	04:16:21	4556	-17107	A	-0.0331	0.9843	21.4S	131.5E	88	56	01m43s
06277	04	0634	Nov 26	12:46:01	4388	-16884	A	-0.0369	0.9804	23.9S	4.4E	88	70	02m09s
06323	05	0652	Dec 06	21:16:51	4220	-16661	A	-0.0391	0.9771	25.5S	122.6W	88	82	02m31s
06370	06	0670	Dec 18	05:46:46	4055	-16438	A	-0.0415	0.9744	26.1S	110.8E	87	92	02m49s
06415	07	0688	Dec 28	14:15:19	3892	-16215	A	-0.0447	0.9723	25.8S	15.4W	87	99	03m02s
06459	08	0707	Jan 08	22:38:11	3730	-15992	A	-0.0520	0.9708	24.8S	140.3W	87	105	03m09s
06501	09	0725	Jan 19	06:56:11	3571	-15769	A	-0.0624	0.9696	23.1S	95.8E	86	109	03m14s
06543	10	0743	Jan 30	15:05:55	3414	-15546	A	-0.0792	0.9690	21.0S	26.3W	85	112	03m15s
06585	11	0761	Feb 09	23:08:52	3260	-15323	A	-0.1007	0.9686	18.5S	146.9W	84	113	03m15s
06626	12	0779	Feb 21	07:00:09	3109	-15100	A	-0.1312	0.9685	16.1S	95.2E	82	114	03m14s
06667	13	0797	Mar 03	14:43:35	2961	-14877	A	-0.1675	0.9685	13.7S	20.8W	80	115	03m14s
06708	14	0815	Mar 14	22:15:01	2817	-14654	A	-0.2128	0.9684	11.7S	133.7W	78	116	03m15s
06749	15	0833	Mar 25	05:37:48	2675	-14431	A	-0.2645	0.9683	10.1S	115.4E	75	117	03m18s

06789	16	0851	Apr 05	12:48:54	2538	-14208	A	-0.3251	0.9680	9.3S	7.6E	71	121	03m25s
06829	17	0869	Apr 15	19:52:37	2404	-13985	A	-0.3909	0.9674	9.3S	98.4W	67	126	03m35s
06869	18	0887	Apr 27	02:46:27	2275	-13762	A	-0.4641	0.9664	10.4S	157.9E	62	135	03m50s
06909	19	0905	May 07	09:33:22	2149	-13539	A	-0.5422	0.9649	12.8S	55.8E	57	149	04m07s
06949	20	0923	May 18	16:13:31	2028	-13316	A	-0.6247	0.9629	16.6S	44.9W	51	170	04m28s
06990	21	0941	May 28	22:49:33	1911	-13093	A	-0.7096	0.9603	21.9S	145.2W	45	203	04m49s
07031	22	0959	Jun 09	05:22:03	1799	-12870	A	-0.7965	0.9569	29.1S	114.7E	37	259	05m06s
07071	23	0977	Jun 19	11:52:12	1691	-12647	A	-0.8844	0.9526	38.8S	14.2E	27	373	05m16s
07113	24	0995	Jun 30	18:22:43	1587	-12424	A	-0.9708	0.9465	53.9S	88.3W	13	854	05m11s
07155	25	1013	Jul 11	00:53:58	1489	-12201	P	-1.0554	0.8698	68.1S	162.5E	0		
07197	26	1031	Jul 22	07:27:48	1395	-11978	P	-1.1369	0.7287	69.1S	52.1E	0		
07240	27	1049	Aug 01	14:05:43	1305	-11755	P	-1.2142	0.5957	70.0S	59.8W	0		
07284	28	1067	Aug 12	20:49:40	1221	-11532	P	-1.2857	0.4734	70.8S	173.9W	0		
07328	29	1085	Aug 23	03:40:37	1140	-11309	P	-1.3506	0.3635	71.4S	69.7E	0		
07373	30	1103	Sep 03	10:38:20	1064	-11086	P	-1.4094	0.2646	71.8S	48.8W	0		
07418	31	1121	Sep 13	17:45:19	993	-10863	P	-1.4600	0.1802	72.0S	170.0W	0		
07463	32	1139	Sep 25	01:00:38	925	-10640	P	-1.5037	0.1081	72.0S	66.7E	0		
07508	33	1157	Oct 05	08:25:14	862	-10417	P	-1.5396	0.0494	71.7S	58.7W	0		
07553	34	1175	Oct 16	15:57:46	803	-10194	Pe	-1.5690	0.0019	71.1S	174.3E	0		

SAROS SERIES

Saros series 92 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

04582	-35	-0076	Aug 19	05:01:57	11316	-25669	Pb	-1.5314	0.0299	61.8S	90.1E	0	
04627	-34	-0058	Aug 30	12:36:27	11125	-25446	P	-1.4902	0.1066	61.4S	33.2W	0	
04672	-33	-0040	Sep 09	20:17:29	10936	-25223	P	-1.4549	0.1720	61.0S	158.0W	0	
04718	-32	-0022	Sep 21	04:06:06	10751	-25000	P	-1.4264	0.2245	60.9S	75.3E	0	
04764	-31	-0004	Oct 01	12:01:46	10567	-24777	P	-1.4041	0.2653	60.9S	53.1W	0	
04809	-30	0014	Oct 12	20:04:10	10386	-24554	P	-1.3880	0.2948	61.0S	176.9E	0	
04855	-29	0032	Oct 23	04:12:28	10206	-24331	P	-1.3773	0.3144	61.4S	45.3E	0	
04900	-28	0050	Nov 03	12:25:52	10029	-24108	P	-1.3712	0.3258	61.9S	87.6W	0	
04944	-27	0068	Nov 13	20:42:55	9853	-23885	P	-1.3687	0.3308	62.5S	138.4E	0	
04988	-26	0086	Nov 25	05:01:20	9678	-23662	P	-1.3680	0.3327	63.3S	3.8E	0	
05033	-25	0104	Dec 05	13:20:54	9505	-23439	P	-1.3687	0.3318	64.2S	131.3W	0	
05077	-24	0122	Dec 16	21:38:59	9333	-23216	P	-1.3693	0.3311	65.2S	93.6E	0	
05121	-23	0140	Dec 27	05:53:56	9161	-22993	P	-1.3677	0.3339	66.2S	41.1W	0	
05164	-22	0159	Jan 07	14:03:20	8989	-22770	P	-1.3623	0.3432	67.3S	174.9W	0	
05205	-21	0177	Jan 17	22:06:44	8819	-22547	P	-1.3529	0.3592	68.4S	52.2E	0	
05246	-20	0195	Jan 29	06:02:37	8648	-22324	P	-1.3383	0.3840	69.4S	79.3W	0	
05287	-19	0213	Feb 08	13:48:25	8477	-22101	P	-1.3162	0.4215	70.3S	151.0E	0	

05328 -18 0231 Feb 19 21:25:10 8305 -21878 P -1.2876 0.4702 71.0S 23.0E 0
 05369 -17 0249 Mar 02 04:51:05 8133 -21655 P -1.2506 0.5333 71.5S 102.7W 0
 05411 -16 0267 Mar 13 12:07:39 7961 -21432 P -1.2067 0.6083 71.9S 133.4E 0
 05451 -15 0285 Mar 23 19:12:28 7788 -21209 P -1.1538 0.6989 71.9S 12.4E 0
 05491 -14 0303 Apr 04 02:09:00 7614 -20986 P -1.0945 0.8007 71.8S 106.5W 0
 05530 -13 0321 Apr 14 08:55:50 7440 -20763 P -1.0274 0.9159 71.4S 137.3E 0
 05570 -12 0339 Apr 25 15:35:16 7264 -20540 A -0.9545 0.9409 57.0S 0.8E 17 745 05m24s
 05610 -11 0357 May 05 22:07:36 7088 -20317 A -0.8758 0.9440 43.6S 109.9W 29 427 05m58s
 05650 -10 0375 May 17 04:35:36 6911 -20094 A -0.7934 0.9459 32.9S 146.0E 37 327 06m26s
 05691 -09 0393 May 27 11:00:05 6733 -19871 A -0.7081 0.9471 23.6S 44.9E 45 276 06m50s
 05732 -08 0411 Jun 07 17:21:39 6555 -19648 A -0.6202 0.9476 15.5S 54.1W 52 246 07m08s
 05773 -07 0429 Jun 17 23:43:27 6377 -19425 A -0.5325 0.9475 8.6S 152.2W 58 228 07m19s
 05814 -06 0447 Jun 29 06:05:57 6198 -19202 A -0.4449 0.9469 2.7S 110.4E 64 218 07m23s
 05856 -05 0465 Jul 09 12:31:50 6020 -18979 A -0.3603 0.9459 1.9N 12.9E 69 213 07m21s
 05899 -04 0483 Jul 20 19:01:07 5843 -18756 A -0.2782 0.9444 5.3N 84.9W 74 213 07m18s
 05943 -03 0501 Jul 31 01:37:16 5667 -18533 A -0.2016 0.9427 7.4N 176.1E 78 216 07m14s
 05987 -02 0519 Aug 11 08:20:20 5490 -18310 A -0.1304 0.9406 8.4N 75.5E 83 222 07m14s
 06031 -01 0537 Aug 21 15:10:51 5314 -18087 A -0.0653 0.9384 8.4N 27.0W 86 229 07m17s
 06077 00 0555 Sep 01 22:10:46 5139 -17864 A -0.0076 0.9360 7.4N 131.9W 90 238 07m25s
 06123 01 0573 Sep 12 05:19:53 4966 -17641 A 0.0425 0.9338 5.7N 120.7E 88 247 07m36s
 06169 02 0591 Sep 23 12:39:49 4794 -17418 Am 0.0843 0.9317 3.4N 10.3E 85 256 07m51s
 06214 03 0609 Oct 03 20:07:39 4623 -17195 A 0.1201 0.9298 0.9N 102.1W 83 265 08m09s
 06259 04 0627 Oct 15 03:46:30 4454 -16972 A 0.1470 0.9282 1.9S 142.4E 82 272 08m30s
 06304 05 0645 Oct 25 11:32:44 4286 -16749 A 0.1682 0.9271 4.5S 25.2E 80 277 08m51s
 06351 06 0663 Nov 05 19:27:43 4120 -16526 A 0.1826 0.9265 7.1S 94.3W 80 281 09m12s
 06397 07 0681 Nov 16 03:27:16 3956 -16303 A 0.1936 0.9264 9.2S 145.3E 79 282 09m29s
 06441 08 0699 Nov 27 11:32:43 3794 -16080 A 0.2003 0.9270 10.7S 23.5E 79 280 09m40s
 06484 09 0717 Dec 07 19:39:54 3634 -15857 A 0.2059 0.9282 11.6S 98.6W 78 275 09m43s

06527	10	0735	Dec 19	03:48:28	3476	-15634	A	0.2107	0.9301	11.6S	139.0E	78	268	09m35s
06569	11	0753	Dec 29	11:55:43	3321	-15411	A	0.2170	0.9326	10.6S	16.8E	78	258	09m16s
06610	12	0772	Jan 09	20:01:18	3169	-15188	A	0.2248	0.9358	8.7S	105.1W	77	245	08m46s
06651	13	0790	Jan 20	04:01:48	3019	-14965	A	0.2375	0.9396	5.8S	133.9E	76	230	08m07s
06692	14	0808	Jan 31	11:57:31	2873	-14742	A	0.2548	0.9439	1.9S	13.8E	75	214	07m22s
06733	15	0826	Feb 10	19:46:24	2731	-14519	A	0.2780	0.9487	2.8N	105.1W	74	196	06m32s
06773	16	0844	Feb 22	03:29:45	2592	-14296	A	0.3065	0.9538	8.3N	137.0E	72	177	05m41s
06813	17	0862	Mar 04	11:03:38	2457	-14073	A	0.3434	0.9591	14.5N	21.2E	70	158	04m49s
06853	18	0880	Mar 14	18:31:57	2325	-13850	A	0.3857	0.9645	21.2N	93.5W	67	138	03m59s
06893	19	0898	Mar 26	01:51:40	2198	-13627	A	0.4361	0.9700	28.5N	153.7E	64	119	03m12s
06933	20	0916	Apr 05	09:06:41	2075	-13404	A	0.4911	0.9753	36.1N	42.2E	60	101	02m28s
06974	21	0934	Apr 16	16:13:20	1957	-13181	A	0.5538	0.9804	44.2N	67.2W	56	83	01m50s
07015	22	0952	Apr 26	23:17:22	1842	-12958	A	0.6195	0.9851	52.5N	175.4W	51	67	01m17s
07056	23	0970	May 08	06:15:56	1733	-12735	A	0.6907	0.9892	61.3N	78.3E	46	52	00m51s
07096	24	0988	May 18	13:13:08	1628	-12512	A	0.7637	0.9929	70.2N	26.0W	40	39	00m31s
07138	25	1006	May 29	20:07:43	1527	-12289	A	0.8397	0.9955	79.8N	124.9W	33	29	00m18s
07180	26	1024	Jun 09	03:04:03	1431	-12066	A	0.9150	0.9971	87.6N	130.3W	23	25	00m10s
07222	27	1042	Jun 20	10:01:14	1340	-11843	A	0.9903	0.9958	71.9N	167.8W	7	126	00m13s
07266	28	1060	Jun 30	17:01:02	1254	-11620	P	1.0642	0.8763	64.6N	82.7E	0		
07310	29	1078	Jul 12	00:05:18	1171	-11397	P	1.1351	0.7474	63.7N	33.3W	0		
07354	30	1096	Jul 22	07:15:03	1094	-11174	P	1.2025	0.6245	63.0N	150.4W	0		
07400	31	1114	Aug 02	14:31:46	1021	-10951	P	1.2648	0.5104	62.3N	91.0E	0		
07445	32	1132	Aug 12	21:55:23	952	-10728	P	1.3223	0.4048	61.8N	29.2W	0		
07490	33	1150	Aug 24	05:28:34	887	-10505	P	1.3729	0.3118	61.4N	151.6W	0		
07535	34	1168	Sep 03	13:10:27	826	-10282	P	1.4174	0.2298	61.2N	83.9E	0		
07581	35	1186	Sep 14	21:01:17	769	-10059	P	1.4555	0.1598	61.1N	42.7W	0		
07626	36	1204	Sep 25	05:01:33	715	-9836	P	1.4869	0.1021	61.1N	171.8W	0		
07672	37	1222	Oct 06	13:11:29	666	-9613	P	1.5111	0.0576	61.4N	56.8E	0		

SAROS SERIES

93

Saros series 93 contains 74 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
04699	-34	-0029 Aug 09	20:27:28	10824	-25088	Pb	1.5170	0.0782	69.7N	64.8E	0		
04746	-33	-0011 Aug 20	03:25:56	10639	-24865	P	1.4557	0.1833	70.6N	53.2W	0		
04791	-32	0007 Aug 31	10:35:56	10457	-24642	P	1.4027	0.2739	71.2N	174.7W	0		
04837	-31	0025 Sep 10	17:55:34	10277	-24419	P	1.3567	0.3525	71.7N	60.9E	0		
04883	-30	0043 Sep 22	01:25:13	10099	-24196	P	1.3181	0.4183	71.9N	66.4W	0		
04927	-29	0061 Oct 02	09:05:28	9922	-23973	P	1.2870	0.4713	71.9N	163.5E	0		
04971	-28	0079 Oct 13	16:55:33	9747	-23750	P	1.2629	0.5123	71.6N	31.2E	0		
05016	-27	0097 Oct 24	00:54:11	9573	-23527	P	1.2450	0.5427	71.0N	103.0W	0		
05060	-26	0115 Nov 04	08:59:23	9401	-23304	P	1.2315	0.5657	70.3N	121.8E	0		

05104	-25	0133	Nov 14	17:11:10	9229	-23081	P	1.2227	0.5809	69.4N	14.4W	0
05148	-24	0151	Nov 26	01:27:03	9057	-22858	P	1.2161	0.5923	68.3N	151.0W	0
05190	-23	0169	Dec 06	09:45:08	8886	-22635	P	1.2106	0.6021	67.2N	72.6E	0
05230	-22	0187	Dec 17	18:03:55	8715	-22412	P	1.2047	0.6124	66.1N	63.5W	0
05271	-21	0205	Dec 28	02:21:27	8544	-22189	P	1.1971	0.6261	65.1N	161.2E	0
05312	-20	0224	Jan 08	10:36:12	8373	-21966	P	1.1865	0.6450	64.1N	27.0E	0
05353	-19	0242	Jan 18	18:46:02	8201	-21743	P	1.1710	0.6727	63.2N	105.6W	0
05394	-18	0260	Jan 30	02:51:04	8029	-21520	P	1.1508	0.7091	62.4N	123.3E	0
05435	-17	0278	Feb 09	10:49:47	7856	-21297	P	1.1243	0.7569	61.8N	6.1W	0
05475	-16	0296	Feb 20	18:40:52	7683	-21074	P	1.0908	0.8177	61.3N	133.4W	0
05514	-15	0314	Mar 03	02:25:09	7509	-20851	P	1.0507	0.8910	60.9N	101.1E	0
05554	-14	0332	Mar 13	10:01:57	7333	-20628	A+	1.0036	0.9779	60.7N	22.5W	0
05594	-13	0350	Mar 24	17:33:04	7158	-20405	A	0.9504	0.9890	57.3N	110.8W	18 124 00m45s
05634	-12	0368	Apr 04	00:56:17	6981	-20182	A	0.8896	0.9977	55.8N	146.6E	27 17 00m10s
05675	-11	0386	Apr 15	08:15:41	6803	-19959	H	0.8246	1.0055	55.3N	42.7E	34 33 00m23s
05716	-10	0404	Apr 25	15:29:35	6625	-19736	T	0.7541	1.0127	55.1N	59.9W	41 66 00m55s
05757	-09	0422	May 06	22:41:20	6447	-19513	T	0.6806	1.0193	54.8N	161.7W	47 89 01m25s
05798	-08	0440	May 17	05:49:32	6268	-19290	T	0.6030	1.0253	53.8N	97.6E	53 107 01m54s
05839	-07	0458	May 28	12:58:30	6090	-19067	T	0.5250	1.0305	52.0N	3.7W	58 121 02m21s
05882	-06	0476	Jun 07	20:06:49	5913	-18844	T	0.4457	1.0350	49.1N	105.6W	63 132 02m48s
05925	-05	0494	Jun 19	03:17:12	5737	-18621	T	0.3672	1.0388	45.2N	150.7E	68 140 03m14s
05969	-04	0512	Jun 29	10:30:12	5560	-18398	T	0.2901	1.0418	40.4N	45.0E	73 146 03m37s
06014	-03	0530	Jul 10	17:48:09	5383	-18175	T	0.2166	1.0440	35.0N	63.4W	77 151 03m57s
06059	-02	0548	Jul 21	01:11:32	5208	-17952	T	0.1468	1.0455	29.0N	174.2W	81 153 04m12s
06105	-01	0566	Aug 01	08:41:01	5034	-17729	T	0.0815	1.0464	22.6N	72.6E	85 155 04m22s
06151	00	0584	Aug 11	16:18:35	4862	-17506	T	0.0224	1.0467	16.1N	43.4W	89 155 04m27s
06196	01	0602	Aug 23	00:04:00	4690	-17283	T	-0.0306	1.0465	9.5N	161.7W	88 155 04m26s
06241	02	0620	Sep 02	07:57:50	4521	-17060	T	-0.0772	1.0459	2.9N	77.6E	86 153 04m21s

06286	03	0638	Sep 13	16:00:38	4352	-16837	Tm	-0.1169	1.0450	3.6S	45.4W	83	151	04m14s
06332	04	0656	Sep 24	00:12:25	4185	-16614	T	-0.1496	1.0441	9.7S	170.5W	81	149	04m05s
06378	05	0674	Oct 05	08:33:20	4020	-16391	T	-0.1750	1.0430	15.5S	62.4E	80	146	03m56s
06423	06	0692	Oct 15	17:00:55	3857	-16168	T	-0.1952	1.0421	21.0S	65.9W	79	143	03m48s
06467	07	0710	Oct 27	01:37:19	3696	-15945	T	-0.2087	1.0414	25.7S	164.3E	78	141	03m41s
06510	08	0728	Nov 06	10:18:56	3538	-15722	T	-0.2182	1.0409	29.8S	33.8E	77	140	03m36s
06552	09	0746	Nov 17	19:06:17	3382	-15499	T	-0.2232	1.0409	33.1S	97.3W	77	140	03m33s
06594	10	0764	Nov 28	03:55:17	3228	-15276	T	-0.2270	1.0412	35.4S	131.9E	77	142	03m32s
06635	11	0782	Dec 09	12:47:43	3078	-15053	T	-0.2283	1.0421	36.7S	0.7E	77	145	03m34s
06676	12	0800	Dec 19	21:39:25	2931	-14830	T	-0.2307	1.0434	37.0S	130.0W	76	149	03m38s
06717	13	0818	Dec 31	06:30:18	2787	-14607	T	-0.2339	1.0452	36.3S	99.3E	76	155	03m44s
06757	14	0837	Jan 10	15:17:40	2646	-14384	T	-0.2405	1.0473	34.7S	30.7W	76	162	03m52s
06797	15	0855	Jan 22	00:01:28	2509	-14161	T	-0.2502	1.0499	32.5S	160.3W	75	171	04m01s
06837	16	0873	Feb 01	08:39:14	2377	-13938	T	-0.2652	1.0527	29.9S	71.2E	74	181	04m12s
06877	17	0891	Feb 12	17:10:42	2248	-13715	T	-0.2857	1.0557	27.0S	56.2W	73	191	04m23s
06917	18	0909	Feb 23	01:35:04	2123	-13492	T	-0.3127	1.0587	24.2S	177.8E	72	203	04m36s
06957	19	0927	Mar 06	09:52:27	2003	-13269	T	-0.3456	1.0617	21.6S	53.4E	70	214	04m50s
06999	20	0945	Mar 16	18:00:58	1887	-13046	T	-0.3861	1.0644	19.4S	69.0W	67	227	05m05s
07040	21	0963	Mar 28	02:02:32	1775	-12823	T	-0.4324	1.0668	17.8S	170.3E	64	240	05m20s
07080	22	0981	Apr 07	09:55:46	1669	-12600	T	-0.4857	1.0687	17.1S	51.7E	61	253	05m34s
07122	23	0999	Apr 18	17:43:24	1566	-12377	T	-0.5439	1.0700	17.3S	65.7W	57	268	05m47s
07164	24	1017	Apr 29	01:22:47	1469	-12154	T	-0.6087	1.0706	18.7S	178.9E	52	286	05m56s
07206	25	1035	May 10	08:58:31	1376	-11931	T	-0.6762	1.0703	21.4S	64.1E	47	307	06m00s
07249	26	1053	May 20	16:28:31	1287	-11708	T	-0.7481	1.0690	25.7S	49.6W	41	336	05m55s
07292	27	1071	May 31	23:56:38	1203	-11485	T	-0.8213	1.0667	31.6S	163.5W	35	381	05m38s
07336	28	1089	Jun 11	07:20:55	1124	-11262	T	-0.8972	1.0629	40.1S	82.9E	26	469	05m05s
07382	29	1107	Jun 22	14:45:52	1049	-11039	T	-0.9722	1.0570	53.6S	32.0W	13	834	04m10s
07427	30	1125	Jul 02	22:10:05	978	-10816	P	-1.0469	0.9294	67.4S	151.5W	0		

07472 31 1143 Jul 14 05:36:19 912 -10593 P -1.1194 0.7889 68.4S 85.4E 0
07517 32 1161 Jul 24 13:04:53 849 -10370 P -1.1895 0.6540 69.4S 38.8W 0
07563 33 1179 Aug 04 20:37:56 791 -10147 P -1.2552 0.5283 70.2S 164.7W 0
07608 34 1197 Aug 15 04:16:07 736 -9924 P -1.3161 0.4129 71.0S 67.6E 0
07653 35 1215 Aug 26 11:59:14 685 -9701 P -1.3723 0.3075 71.5S 61.8W 0
07699 36 1233 Sep 05 19:49:30 637 -9478 P -1.4219 0.2156 71.9S 166.5E 0
07744 37 1251 Sep 17 03:45:52 592 -9255 P -1.4660 0.1351 72.0S 33.1E 0
07788 38 1269 Sep 27 11:49:53 550 -9032 P -1.5034 0.0680 71.8S 102.2W 0
07831 39 1287 Oct 08 20:00:06 511 -8809 Pe -1.5351 0.0120 71.4S 121.2E 0

SAROS SERIES

94

Saros series 94 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

04727 -37 -0018 Jul 09 13:12:23 10712 -24953 Pb -1.4930 0.0727 64.5S 0.4W 0

04773 -36 0000 Jul 19 20:44:11 10529 -24730 P -1.4254 0.2024 63.6S 123.8W 0

04819 -35 0018 Jul 31 04:23:15 10348 -24507 P -1.3632 0.3220 62.8S 111.3E 0

04865 -34 0036 Aug 10 12:08:25 10169 -24284 P -1.3057 0.4325 62.2S 15.0W 0

04910 -33 0054 Aug 21 20:02:32 9992 -24061 P -1.2550 0.5296 61.6S 143.2W 0

04954 -32 0072 Sep 01 04:03:21 9816 -23838 P -1.2096 0.6162 61.2S 87.0E 0

04998 -31 0090 Sep 12 12:14:01 9642 -23615 P -1.1718 0.6879 60.9S 45.1W 0

05043 -30 0108 Sep 22 20:32:21 9469 -23392 P -1.1403 0.7476 60.8S 179.1W 0

05087 -29 0126 Oct 04 04:59:04 9296 -23169 P -1.1156 0.7938 60.8S 44.8E 0

05131 -28 0144 Oct 14 13:32:59 9125 -22946 P -1.0968 0.8287 61.1S 93.1W 0

05173 -27 0162 Oct 25 22:13:52 8953 -22723 P -1.0839 0.8525 61.5S 127.2E 0

05214 -26 0180 Nov 05 07:00:07 8782 -22500 P -1.0755 0.8678 62.0S 14.0W 0

05255 -25 0198 Nov 16 15:49:37 8612 -22277 P -1.0699 0.8779 62.7S 156.2W 0

05296 -24 0216 Nov 27 00:42:30 8440 -22054 P -1.0674 0.8823 63.6S 60.6E 0

05337 -23 0234 Dec 08 09:36:15 8269 -21831 P -1.0662 0.8843 64.5S 83.2W 0

05378 -22 0252 Dec 18 18:29:19 8097 -21608 P -1.0645 0.8874 65.5S 132.8E 0

05419 -21 0270 Dec 30 03:19:31 7925 -21385 P -1.0610 0.8943 66.6S 10.9W 0

05459 -20 0289 Jan 09 12:06:27 7752 -21162 P -1.0551 0.9057 67.7S 154.3W 0

05499 -19 0307 Jan 20 20:48:20 7578 -20939 P -1.0455 0.9243 68.7S 63.0E 0

05538 -18 0325 Jan 31 05:23:25 7403 -20716 P -1.0308 0.9526 69.7S 78.6W 0

05578 -17 0343 Feb 11 13:51:49 7227 -20493 P -1.0110 0.9909 70.5S 140.8E 0

05618 -16 0361 Feb 21 22:12:14 7051 -20270 T -0.9850 1.0395 74.3S 26.7W 9 853 02m07s

05659 -15 0379 Mar 05 06:24:24 6873 -20047 T -0.9524 1.0438 69.7S 170.8E 17 491 02m35s

05700 -14 0397 Mar 15 14:27:52 6696 -19824 T -0.9131 1.0473 62.1S 30.3E 24 388 03m02s

05741 -13 0415 Mar 26 22:23:20 6517 -19601 T -0.8676 1.0503 53.7S 100.5W 29 334 03m31s

05782 -12 0433 Apr 06 06:11:16 6339 -19378 T -0.8163 1.0527 45.3S 133.9E 35 300 03m59s

05822 -11 0451 Apr 17 13:50:39 6161 -19155 T -0.7582 1.0545 36.8S 12.3E 40 274 04m27s

05864 -10 0469 Apr 27 21:24:18 5983 -18932 T -0.6958 1.0555 28.7S 106.7W 46 254 04m52s

05907 -09 0487 May 09 04:51:29 5806 -18709 T -0.6283 1.0559 20.9S 136.9E 51 236 05m11s

05951	-08	0505	May 19	12:15:05	5630	-18486	T	-0.5585	1.0553	13.7S	22.1E	56	220	05m23s
05995	-07	0523	May 30	19:33:08	5453	-18263	T	-0.4847	1.0541	6.9S	90.5W	61	204	05m25s
06040	-06	0541	Jun 10	02:50:29	5277	-18040	T	-0.4108	1.0519	1.0S	157.9E	66	188	05m17s
06087	-05	0559	Jun 21	10:05:31	5103	-17817	T	-0.3354	1.0490	4.1N	47.6E	70	173	04m59s
06133	-04	0577	Jul 01	17:21:52	4930	-17594	T	-0.2618	1.0453	8.3N	62.4W	75	156	04m33s
06179	-03	0595	Jul 13	00:38:24	4758	-17371	T	-0.1891	1.0409	11.4N	171.9W	79	139	04m02s
06224	-02	0613	Jul 23	07:59:27	4587	-17148	T	-0.1207	1.0358	13.4N	78.0E	83	121	03m28s
06269	-01	0631	Aug 03	15:23:41	4418	-16925	Tm	-0.0557	1.0303	14.3N	32.8W	87	102	02m52s
06314	00	0649	Aug 13	22:52:54	4251	-16702	T	0.0045	1.0243	14.2N	144.8W	90	83	02m16s
06361	01	0667	Aug 25	06:27:37	4085	-16479	T	0.0594	1.0180	13.3N	101.8E	87	62	01m40s
06406	02	0685	Sep 04	14:09:25	3922	-16256	H	0.1074	1.0116	11.6N	13.7W	84	40	01m04s
06450	03	0703	Sep 15	21:57:57	3760	-16033	H	0.1492	1.0052	9.4N	131.1W	81	18	00m29s
06493	04	0721	Sep 26	05:53:18	3600	-15810	A	0.1845	0.9988	6.8N	109.5E	79	4	00m07s
06535	05	0739	Oct 07	13:55:43	3443	-15587	A	0.2131	0.9926	4.1N	11.9W	78	26	00m43s
06577	06	0757	Oct 17	22:05:15	3289	-15364	A	0.2349	0.9868	1.3N	135.1W	76	48	01m20s
06618	07	0775	Oct 29	06:19:41	3137	-15141	A	0.2517	0.9814	1.3S	100.4E	75	68	01m57s
06660	08	0793	Nov 08	14:39:47	2988	-14918	A	0.2631	0.9765	3.7S	25.5W	75	87	02m34s
06701	09	0811	Nov 19	23:02:52	2843	-14695	A	0.2710	0.9722	5.6S	152.0W	74	103	03m10s
06742	10	0829	Nov 30	07:29:09	2701	-14472	A	0.2757	0.9685	6.9S	80.8E	74	118	03m43s
06781	11	0847	Dec 11	15:54:14	2563	-14249	A	0.2806	0.9654	7.4S	46.0W	74	130	04m13s
06821	12	0865	Dec 22	00:20:03	2429	-14026	A	0.2840	0.9629	7.1S	173.0W	74	140	04m37s
06861	13	0884	Jan 02	08:42:03	2298	-13803	A	0.2896	0.9610	5.8S	60.9E	73	148	04m55s
06901	14	0902	Jan 12	17:00:22	2172	-13580	A	0.2978	0.9597	3.6S	64.5W	73	153	05m06s
06941	15	0920	Jan 24	01:11:14	2050	-13357	A	0.3115	0.9587	0.3S	171.6E	72	158	05m12s
06982	16	0938	Feb 03	09:16:04	1932	-13134	A	0.3294	0.9583	3.8N	48.9E	71	160	05m11s
07023	17	0956	Feb 14	17:11:45	1819	-12911	A	0.3540	0.9580	8.8N	71.8W	69	163	05m06s
07064	18	0974	Feb 25	00:57:51	1710	-12688	A	0.3857	0.9580	14.6N	169.4E	67	165	04m58s
07106	19	0992	Mar 07	08:33:56	1606	-12465	A	0.4248	0.9580	21.0N	52.9E	65	168	04m48s

07148	20	1010	Mar 18	16:00:00	1507	-12242	A	0.4716	0.9581	28.1N	61.4W	62	172	04m36s
07190	21	1028	Mar 28	23:15:25	1412	-12019	A	0.5262	0.9579	35.8N	173.3W	58	179	04m24s
07232	22	1046	Apr 09	06:20:59	1321	-11796	A	0.5880	0.9576	44.0N	77.2E	54	190	04m11s
07276	23	1064	Apr 19	13:17:27	1236	-11573	A	0.6564	0.9568	52.8N	30.1W	49	208	03m58s
07320	24	1082	Apr 30	20:06:15	1155	-11350	A	0.7301	0.9556	62.1N	135.6W	43	238	03m46s
07365	25	1100	May 11	02:46:35	1078	-11127	A	0.8100	0.9537	72.4N	119.9E	36	291	03m36s
07410	26	1118	May 22	09:22:22	1006	-10904	A	0.8927	0.9508	83.9N	5.6E	26	406	03m27s
07455	27	1136	Jun 01	15:52:58	937	-10681	A	0.9790	0.9459	78.0N	124.5E	11	1063	03m18s
07500	28	1154	Jun 12	22:21:53	874	-10458	P	1.0656	0.8530	66.1N	16.7E	0		
07545	29	1172	Jun 23	04:47:38	813	-10235	P	1.1539	0.7004	65.1N	90.0W	0		
07591	30	1190	Jul 04	11:15:38	757	-10012	P	1.2397	0.5528	64.2N	163.0E	0		
07636	31	1208	Jul 14	17:44:19	705	-9789	P	1.3243	0.4078	63.3N	56.2E	0		
07682	32	1226	Jul 26	00:17:26	655	-9566	P	1.4044	0.2713	62.6N	51.5W	0		
07727	33	1244	Aug 05	06:54:20	609	-9343	P	1.4807	0.1421	62.0N	160.0W	0		
07771	34	1262	Aug 16	13:39:00	567	-9120	Pe	1.5501	0.0254	61.5N	89.8E	0		

SAROS SERIES

95

Saros series 95 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	

ECLIPSE

04893	-35	0047	Jul 11	18:20:49	10061	-24149	Pb	1.5350	0.0174	67.2N	123.1E	0
04937	-34	0065	Jul 22	01:29:10	9885	-23926	P	1.4729	0.1325	68.2N	4.2E	0
04981	-33	0083	Aug 02	08:41:17	9710	-23703	P	1.4145	0.2399	69.2N	116.2W	0
05026	-32	0101	Aug 12	15:58:57	9537	-23480	P	1.3610	0.3372	70.0N	121.4E	0
05070	-31	0119	Aug 23	23:23:07	9364	-23257	P	1.3133	0.4232	70.8N	3.2W	0
05114	-30	0137	Sep 03	06:54:33	9192	-23034	P	1.2722	0.4962	71.4N	130.2W	0
05157	-29	0155	Sep 14	14:32:13	9021	-22811	P	1.2368	0.5584	71.7N	100.8E	0
05198	-28	0173	Sep 24	22:18:14	8850	-22588	P	1.2090	0.6067	71.9N	30.6W	0
05239	-27	0191	Oct 06	06:10:58	8679	-22365	P	1.1871	0.6441	71.7N	163.6W	0
05280	-26	0209	Oct 16	14:10:27	8508	-22142	P	1.1714	0.6705	71.3N	61.8E	0
05321	-25	0227	Oct 27	22:15:17	8337	-21919	P	1.1606	0.6881	70.7N	73.6W	0
05362	-24	0245	Nov 07	06:25:01	8165	-21696	P	1.1545	0.6978	69.9N	150.3E	0
05403	-23	0263	Nov 18	14:38:13	7993	-21473	P	1.1518	0.7018	69.0N	14.0E	0
05443	-22	0281	Nov 28	22:52:13	7820	-21250	P	1.1503	0.7038	67.9N	121.8W	0
05483	-21	0299	Dec 10	07:07:16	7646	-21027	P	1.1501	0.7037	66.8N	102.7E	0
05522	-20	0317	Dec 20	15:19:59	7472	-20804	P	1.1482	0.7066	65.8N	31.7W	0
05562	-19	0335	Dec 31	23:29:52	7296	-20581	P	1.1448	0.7123	64.7N	165.0W	0
05602	-18	0354	Jan 11	07:33:10	7120	-20358	P	1.1363	0.7266	63.8N	63.8E	0
05642	-17	0372	Jan 22	15:31:22	6943	-20135	P	1.1241	0.7473	62.9N	65.8W	0
05684	-16	0390	Feb 01	23:20:58	6766	-19912	P	1.1050	0.7797	62.2N	166.9E	0
05725	-15	0408	Feb 13	07:01:38	6588	-19689	P	1.0792	0.8238	61.6N	42.1E	0
05766	-14	0426	Feb 23	14:32:13	6409	-19466	P	1.0456	0.8811	61.1N	80.0W	0

05807	-13	0444	Mar 05	21:53:09	6231	-19243	A+	1.0045	0.9513	60.8N	160.3E	0
05848	-12	0462	Mar 17	05:04:02	6053	-19020	A	0.9555	0.9323	56.3N	74.2E	17 850 05m24s
05891	-11	0480	Mar 27	12:04:20	5876	-18797	A	0.8980	0.9358	54.3N	23.7W	26 530 05m16s
05934	-10	0498	Apr 07	18:55:52	5700	-18574	A	0.8337	0.9389	53.5N	121.2W	33 401 05m08s
05978	-09	0516	Apr 18	01:38:56	5522	-18351	A	0.7628	0.9415	53.1N	143.2E	40 329 05m01s
06022	-08	0534	Apr 29	08:14:13	5346	-18128	A	0.6856	0.9438	52.6N	50.0E	46 282 04m58s
06068	-07	0552	May 09	14:43:48	5171	-17905	A	0.6037	0.9455	51.6N	41.6W	53 250 05m00s
06114	-06	0570	May 20	21:08:33	4998	-17682	A	0.5179	0.9470	49.8N	132.0W	59 227 05m06s
06161	-05	0588	May 31	03:31:10	4825	-17459	A	0.4303	0.9478	47.1N	137.4E	64 212 05m18s
06206	-04	0606	Jun 11	09:50:53	4655	-17236	A	0.3401	0.9483	43.1N	46.5E	70 202 05m35s
06251	-03	0624	Jun 21	16:12:34	4485	-17013	A	0.2517	0.9481	38.3N	46.2W	75 197 05m56s
06296	-02	0642	Jul 02	22:35:07	4317	-16790	A	0.1639	0.9477	32.6N	140.5W	80 195 06m21s
06342	-01	0660	Jul 13	05:02:57	4151	-16567	A	0.0801	0.9468	26.4N	122.7E	85 197 06m46s
06388	00	0678	Jul 24	11:34:07	3986	-16344	Am	-0.0011	0.9455	19.6N	24.1E	90 201 07m10s
06432	01	0696	Aug 03	18:13:52	3823	-16121	A	-0.0754	0.9439	12.6N	77.4W	86 208 07m30s
06475	02	0714	Aug 15	00:59:30	3663	-15898	A	-0.1449	0.9420	5.4N	179.0E	82 217 07m46s
06518	03	0732	Aug 25	07:54:41	3505	-15675	A	-0.2066	0.9401	1.8S	72.7E	78 226 07m55s
06560	04	0750	Sep 05	14:57:59	3349	-15452	A	-0.2620	0.9381	8.9S	35.8W	75 238 08m00s
06602	05	0768	Sep 15	22:12:37	3196	-15229	A	-0.3084	0.9362	15.8S	147.1W	72 249 08m00s
06643	06	0786	Sep 27	05:36:17	3047	-15006	A	-0.3475	0.9344	22.4S	99.6E	70 260 07m57s
06685	07	0804	Oct 07	13:09:48	2900	-14783	A	-0.3789	0.9329	28.6S	15.7W	68 270 07m52s
06726	08	0822	Oct 18	20:52:23	2757	-14560	A	-0.4031	0.9318	34.4S	132.5W	66 278 07m45s
06766	09	0840	Oct 29	04:43:55	2617	-14337	A	-0.4208	0.9311	39.4S	109.3E	65 284 07m35s
06806	10	0858	Nov 09	12:41:59	2481	-14114	A	-0.4334	0.9309	43.7S	9.3W	64 287 07m24s
06846	11	0876	Nov 19	20:46:20	2349	-13891	A	-0.4415	0.9313	47.1S	128.2W	64 287 07m11s
06886	12	0894	Dec 01	04:54:33	2221	-13668	A	-0.4470	0.9324	49.4S	113.1E	63 283 06m56s
06926	13	0912	Dec 11	13:06:23	2097	-13445	A	-0.4504	0.9341	50.4S	5.7W	63 276 06m38s
06966	14	0930	Dec 22	21:17:36	1978	-13222	A	-0.4550	0.9364	50.3S	124.2W	63 266 06m17s

07007	15	0949	Jan 02	05:29:26	1863	-12999	A	-0.4598	0.9394	49.1S	116.8E	62	253	05m54s
07048	16	0967	Jan 13	13:37:19	1753	-12776	A	-0.4687	0.9430	47.0S	1.9W	62	238	05m28s
07089	17	0985	Jan 23	21:42:16	1647	-12553	A	-0.4805	0.9472	44.3S	120.8W	61	221	05m00s
07131	18	1003	Feb 04	05:40:06	1545	-12330	A	-0.4990	0.9517	41.5S	121.4E	60	202	04m31s
07173	19	1021	Feb 14	13:33:29	1449	-12107	A	-0.5218	0.9568	38.5S	3.9E	58	182	04m01s
07215	20	1039	Feb 25	21:18:55	1357	-11884	A	-0.5521	0.9620	35.8S	112.0W	56	163	03m31s
07258	21	1057	Mar 08	04:57:18	1269	-11661	A	-0.5888	0.9675	33.6S	133.5E	54	142	03m01s
07302	22	1075	Mar 19	12:27:45	1186	-11438	A	-0.6326	0.9728	32.2S	20.9E	51	123	02m32s
07346	23	1093	Mar 29	19:51:50	1108	-11215	A	-0.6824	0.9782	31.6S	90.2W	47	103	02m02s
07392	24	1111	Apr 10	03:09:37	1034	-10992	A	-0.7383	0.9832	32.3S	160.1E	42	86	01m34s
07437	25	1129	Apr 20	10:21:11	964	-10769	A	-0.8000	0.9879	34.5S	52.1E	37	69	01m08s
07482	26	1147	May 01	17:28:51	898	-10546	A	-0.8658	0.9918	38.7S	54.9W	30	57	00m45s
07527	27	1165	May 12	00:33:05	837	-10323	A	-0.9349	0.9946	46.0S	160.4W	20	53	00m28s
07573	28	1183	May 23	07:34:59	779	-10100	P	-1.0067	0.9797	63.9S	104.1E	0		
07618	29	1201	Jun 02	14:35:50	725	-9877	P	-1.0802	0.8474	64.8S	11.0W	0		
07663	30	1219	Jun 13	21:37:18	674	-9654	P	-1.1537	0.7138	65.7S	126.7W	0		
07709	31	1237	Jun 24	04:41:09	627	-9431	P	-1.2260	0.5814	66.7S	116.7E	0		
07754	32	1255	Jul 05	11:47:02	583	-9208	P	-1.2971	0.4503	67.7S	0.8W	0		
07798	33	1273	Jul 15	18:58:15	542	-8985	P	-1.3644	0.3257	68.7S	120.2W	0		
07841	34	1291	Jul 27	02:14:27	503	-8762	P	-1.4280	0.2075	69.6S	118.6E	0		
07883	35	1309	Aug 06	09:38:14	467	-8539	Pe	-1.4863	0.0990	70.4S	5.0W	0		

SAROS SERIES

Saros series 96 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

05008	-35	0094	Jul 01	10:27:36	9605	-23568	Pb	-1.5566	0.0070	65.1S	42.5E	0	
05053	-34	0112	Jul 11	17:00:26	9432	-23345	P	-1.4751	0.1475	64.2S	66.3W	0	
05097	-33	0130	Jul 22	23:40:13	9260	-23122	P	-1.3977	0.2808	63.3S	176.5W	0	
05141	-32	0148	Aug 02	06:27:42	9089	-22899	P	-1.3252	0.4058	62.5S	71.7E	0	
05183	-31	0166	Aug 13	13:24:10	8917	-22676	P	-1.2589	0.5199	61.9S	42.2W	0	
05223	-30	0184	Aug 23	20:29:42	8746	-22453	P	-1.1989	0.6231	61.3S	158.2W	0	
05264	-29	0202	Sep 04	03:46:22	8575	-22230	P	-1.1469	0.7123	61.0S	83.2E	0	
05305	-28	0220	Sep 14	11:13:10	8404	-22007	P	-1.1022	0.7890	60.7S	37.9W	0	
05346	-27	0238	Sep 25	18:49:44	8233	-21784	P	-1.0645	0.8534	60.7S	161.3W	0	
05387	-26	0256	Oct 06	02:36:21	8061	-21561	P	-1.0342	0.9052	60.8S	72.7E	0	
05428	-25	0274	Oct 17	10:32:32	7888	-21338	A-	-1.0113	0.9444	61.1S	55.7W	0	
05468	-24	0292	Oct 27	18:36:49	7715	-21115	As	-0.9939	0.9382	63.6S	177.0W	5	- 03m50s
05507	-23	0310	Nov 08	02:47:32	7541	-20892	As	-0.9810	0.9405	67.3S	62.6E	10	- 03m43s
05546	-22	0328	Nov 18	11:04:09	7366	-20669	A	-0.9722	0.9426	70.6S	66.0W	13	951 03m33s
05586	-21	0346	Nov 29	19:25:12	7190	-20446	A	-0.9664	0.9449	74.1S	160.6E	14	825 03m23s
05626	-20	0364	Dec 10	03:47:33	7013	-20223	A	-0.9609	0.9479	77.7S	24.3E	15	721 03m11s
05667	-19	0382	Dec 21	12:10:55	6836	-20000	A	-0.9555	0.9513	81.4S	117.6W	17	628 02m58s

05708	-18	0400	Dec 31	20:32:08	6658	-19777	A	-0.9475	0.9556	85.0S	86.8E	18	523	02m44s
05750	-17	0419	Jan 12	04:51:32	6480	-19554	A	-0.9373	0.9605	85.8S	108.7W	20	423	02m29s
05791	-16	0437	Jan 22	13:04:52	6301	-19331	A	-0.9216	0.9662	81.8S	80.8E	22	321	02m11s
05831	-15	0455	Feb 02	21:14:29	6123	-19108	A	-0.9020	0.9723	76.1S	59.9W	25	233	01m52s
05874	-14	0473	Feb 13	05:16:16	5945	-18885	A	-0.8754	0.9790	69.5S	168.0E	29	156	01m29s
05917	-13	0491	Feb 24	13:11:57	5769	-18662	A	-0.8429	0.9860	62.3S	40.3E	32	92	01m02s
05961	-12	0509	Mar 06	20:59:05	5592	-18439	A	-0.8024	0.9933	54.6S	83.9W	36	39	00m32s
06005	-11	0527	Mar 18	04:40:28	5415	-18216	H	-0.7564	1.0006	46.8S	154.4E	41	3	00m03s
06050	-10	0545	Mar 28	12:14:40	5240	-17993	H	-0.7036	1.0079	38.7S	35.1E	45	38	00m42s
06096	-09	0563	Apr 08	19:42:28	5066	-17770	T	-0.6445	1.0150	30.6S	82.0W	50	67	01m25s
06142	-08	0581	Apr 19	03:05:14	4893	-17547	T	-0.5800	1.0218	22.6S	162.8E	54	91	02m09s
06188	-07	0599	Apr 30	10:23:56	4722	-17324	T	-0.5110	1.0281	14.8S	49.1E	59	110	02m52s
06233	-06	0617	May 10	17:39:29	4552	-17101	T	-0.4384	1.0340	7.4S	63.2W	64	127	03m32s
06278	-05	0635	May 22	00:52:37	4383	-16878	T	-0.3629	1.0391	0.4S	174.3W	69	141	04m06s
06324	-04	0653	Jun 01	08:05:39	4216	-16655	T	-0.2861	1.0436	5.9N	75.5E	73	152	04m32s
06371	-03	0671	Jun 12	15:19:39	4051	-16432	T	-0.2090	1.0473	11.4N	34.3W	78	161	04m48s
06416	-02	0689	Jun 22	22:34:45	3887	-16209	T	-0.1319	1.0503	16.1N	143.6W	83	168	04m56s
06460	-01	0707	Jul 04	05:53:44	3726	-15986	T	-0.0573	1.0525	19.8N	106.8E	87	174	04m57s
06502	00	0725	Jul 14	13:16:42	3567	-15763	T	0.0146	1.0540	22.3N	3.2W	89	179	04m53s
06544	01	0743	Jul 25	20:46:00	3410	-15540	Tm	0.0819	1.0547	23.7N	114.5W	85	181	04m46s
06586	02	0761	Aug 05	04:19:51	3256	-15317	T	0.1459	1.0548	24.1N	133.1E	81	183	04m38s
06627	03	0779	Aug 16	12:02:26	3105	-15094	T	0.2033	1.0544	23.5N	18.3E	78	183	04m29s
06668	04	0797	Aug 26	19:51:37	2957	-14871	T	0.2556	1.0535	22.2N	98.4W	75	182	04m21s
06709	05	0815	Sep 07	03:50:18	2813	-14648	T	0.3003	1.0522	20.3N	142.1E	72	180	04m14s
06750	06	0833	Sep 17	11:56:03	2672	-14425	T	0.3394	1.0507	18.0N	20.3E	70	178	04m08s
06790	07	0851	Sep 28	20:12:09	2534	-14202	T	0.3705	1.0492	15.4N	104.4W	68	174	04m03s
06830	08	0869	Oct 09	04:35:25	2401	-13979	T	0.3960	1.0475	12.8N	128.8E	67	171	04m00s
06870	09	0887	Oct 20	13:06:40	2271	-13756	T	0.4151	1.0461	10.2N	0.2W	65	167	03m59s

06910	10	0905 Oct 30	21:44:30	2146 -13533	T	0.4293	1.0449	7.8N 131.0W	65	164	03m59s
06950	11	0923 Nov 11	06:29:02	2025 -13310	T	0.4377	1.0440	5.8N 96.5E	64	162	04m01s
06991	12	0941 Nov 21	15:17:26	1908 -13087	T	0.4437	1.0436	4.2N 36.9W	64	162	04m05s
07032	13	0959 Dec 03	00:08:45	1796 -12864	T	0.4473	1.0435	3.3N 171.0W	63	162	04m10s
07072	14	0977 Dec 13	09:01:41	1688 -12641	T	0.4499	1.0439	3.0N 54.5E	63	164	04m16s
07114	15	0995 Dec 24	17:55:08	1585 -12418	T	0.4518	1.0448	3.6N 80.1W	63	168	04m23s
07156	16	1014 Jan 04	02:45:41	1486 -12195	T	0.4565	1.0462	5.0N 146.0E	63	173	04m29s
07198	17	1032 Jan 15	11:33:38	1392 -11972	T	0.4632	1.0479	7.4N 12.5E	62	179	04m35s
07241	18	1050 Jan 25	20:16:08	1303 -11749	T	0.4746	1.0499	10.6N 119.8W	62	188	04m41s
07285	19	1068 Feb 06	04:53:52	1218 -11526	T	0.4899	1.0521	14.7N 108.8E	61	197	04m46s
07329	20	1086 Feb 16	13:23:18	1138 -11303	T	0.5120	1.0544	19.7N 20.9W	59	208	04m48s
07375	21	1104 Feb 27	21:46:57	1062 -11080	T	0.5390	1.0568	25.3N 149.3W	57	221	04m49s
07420	22	1122 Mar 10	06:01:29	991 -10857	T	0.5736	1.0588	31.6N 84.2E	55	235	04m47s
07465	23	1140 Mar 20	14:08:51	924 -10634	T	0.6143	1.0607	38.6N 40.8W	52	251	04m42s
07510	24	1158 Mar 31	22:07:25	861 -10411	T	0.6623	1.0621	46.2N 163.9W	48	271	04m33s
07555	25	1176 Apr 11	05:59:31	801 -10188	T	0.7156	1.0629	54.2N 74.2E	44	295	04m20s
07600	26	1194 Apr 22	13:44:30	746 -9965	T	0.7748	1.0629	62.9N 46.7W	39	327	04m03s
07645	27	1212 May 02	21:22:43	694 -9742	T	0.8394	1.0620	72.4N 168.7W	33	377	03m43s
07691	28	1230 May 14	04:56:10	645 -9519	T	0.9078	1.0597	82.5N 52.4E	24	476	03m17s
07736	29	1248 May 24	12:24:47	600 -9296	T	0.9801	1.0549	78.2N 170.9W	11	997	02m42s
07780	30	1266 Jun 04	19:50:32	558 -9073	P	1.0541	0.9156	66.8N 60.4E	0		
07823	31	1284 Jun 15	03:13:07	518 -8850	P	1.1301	0.7690	65.8N 60.8W	0		
07866	32	1302 Jun 26	10:35:49	481 -8627	P	1.2055	0.6240	64.8N 178.4E	0		
07908	33	1320 Jul 06	17:58:24	447 -8404	P	1.2804	0.4807	63.9N 57.9E	0		
07949	34	1338 Jul 18	01:22:26	414 -8181	P	1.3535	0.3419	63.2N 62.6W	0		
07990	35	1356 Jul 28	08:49:12	384 -7958	P	1.4235	0.2101	62.5N 176.3E	0		
08031	36	1374 Aug 08	16:20:08	355 -7735	Pe	1.4893	0.0875	61.9N 54.5E	0		

SAROS SERIES

97

Saros series 97 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

05079	-36	0123 Jun 11	10:40:13	9328	-23210	Pb	1.4766	0.1028	64.6N	96.4W	0		
05123	-35	0141 Jun 21	18:02:55	9156	-22987	P	1.4015	0.2470	65.6N	142.2E	0		
05166	-34	0159 Jul 03	01:30:16	8985	-22764	P	1.3295	0.3856	66.5N	19.3E	0		
05207	-33	0177 Jul 13	09:00:47	8814	-22541	P	1.2600	0.5196	67.5N	104.9W	0		
05248	-32	0195 Jul 24	16:36:40	8643	-22318	P	1.1945	0.6457	68.5N	129.1E	0		
05289	-31	0213 Aug 04	00:18:25	8472	-22095	P	1.1337	0.7625	69.5N	1.1E	0		
05330	-30	0231 Aug 15	08:07:30	8301	-21872	P	1.0789	0.8673	70.3N	129.4W	0		
05371	-29	0249 Aug 25	16:04:09	8129	-21649	P	1.0303	0.9597	71.0N	97.6E	0		
05412	-28	0267 Sep 06	00:08:11	7956	-21426	Tn	0.9878	1.0472	73.1N	62.9W	8	-	02m32s
05452	-27	0285 Sep 16	08:21:02	7783	-21203	T	0.9528	1.0475	67.4N	135.4E	17	531	02m51s
05492	-26	0303 Sep 27	16:41:24	7610	-20980	T	0.9240	1.0463	60.6N	5.2W	22	405	03m00s

05531	-25	0321	Oct 08	01:09:39	7435	-20757	T	0.9018	1.0445	54.6N	141.7W	25	343	03m05s
05571	-24	0339	Oct 19	09:44:42	7259	-20534	T	0.8852	1.0425	49.5N	82.6E	27	305	03m07s
05611	-23	0357	Oct 29	18:26:42	7083	-20311	T	0.8744	1.0406	45.3N	53.7W	29	280	03m07s
05651	-22	0375	Nov 10	03:13:23	6906	-20088	T	0.8677	1.0388	42.0N	169.5E	29	262	03m07s
05692	-21	0393	Nov 20	12:03:39	6728	-19865	T	0.8640	1.0373	39.4N	32.1E	30	250	03m05s
05733	-20	0411	Dec 01	20:56:26	6550	-19642	T	0.8625	1.0363	37.6N	105.7W	30	242	03m04s
05774	-19	0429	Dec 12	05:50:23	6372	-19419	T	0.8620	1.0356	36.4N	116.2E	30	237	03m02s
05815	-18	0447	Dec 23	14:42:21	6193	-19196	T	0.8603	1.0355	35.6N	21.3W	30	235	03m02s
05857	-17	0466	Jan 02	23:31:56	6015	-18973	T	0.8569	1.0357	35.2N	158.1W	31	233	03m02s
05900	-16	0484	Jan 14	08:16:49	5838	-18750	T	0.8499	1.0366	35.0N	66.5E	32	232	03m04s
05944	-15	0502	Jan 24	16:57:17	5662	-18527	T	0.8396	1.0378	35.1N	67.5W	33	230	03m06s
05988	-14	0520	Feb 05	01:29:14	5485	-18304	T	0.8227	1.0395	35.2N	161.1E	34	228	03m10s
06032	-13	0538	Feb 15	09:55:14	5309	-18081	T	0.8012	1.0412	35.7N	31.8E	37	226	03m14s
06078	-12	0556	Feb 26	18:11:26	5135	-17858	T	0.7721	1.0433	36.2N	94.4W	39	222	03m19s
06124	-11	0574	Mar 09	02:20:43	4961	-17635	T	0.7376	1.0452	37.1N	141.8E	42	218	03m23s
06170	-10	0592	Mar 19	10:19:26	4789	-17412	T	0.6948	1.0470	38.0N	21.5E	46	213	03m29s
06215	-09	0610	Mar 30	18:11:46	4619	-17189	T	0.6469	1.0485	39.2N	96.4W	49	208	03m34s
06260	-08	0628	Apr 10	01:54:42	4449	-16966	T	0.5919	1.0496	40.2N	148.8E	53	202	03m40s
06305	-07	0646	Apr 21	09:31:04	4282	-16743	T	0.5316	1.0502	41.0N	36.5E	58	195	03m45s
06352	-06	0664	May 01	16:59:55	4116	-16520	T	0.4658	1.0501	41.3N	73.2W	62	187	03m50s
06398	-05	0682	May 13	00:23:49	3951	-16297	T	0.3964	1.0494	40.8N	178.7E	66	178	03m54s
06442	-04	0700	May 23	07:42:50	3789	-16074	T	0.3233	1.0480	39.4N	72.0E	71	168	03m56s
06485	-03	0718	Jun 03	14:57:54	3629	-15851	T	0.2478	1.0458	36.9N	34.1W	75	157	03m56s
06528	-02	0736	Jun 13	22:11:01	3472	-15628	T	0.1715	1.0428	33.5N	140.4W	80	145	03m52s
06570	-01	0754	Jun 25	05:23:15	3317	-15405	Tm	0.0955	1.0391	29.1N	112.7E	84	132	03m43s
06611	00	0772	Jul 05	12:35:35	3165	-15182	T	0.0204	1.0347	23.9N	4.9E	89	117	03m27s
06652	01	0790	Jul 16	19:49:25	3015	-14959	T	-0.0525	1.0296	18.0N	104.1W	87	100	03m03s
06693	02	0808	Jul 27	03:06:05	2869	-14736	T	-0.1222	1.0241	11.7N	145.4E	83	83	02m33s

06734	03	0826	Aug 07	10:27:15	2727	-14513	T	-0.1869	1.0180	5.0N	33.1E	79	63	01m56s
06774	04	0844	Aug 17	17:52:11	2588	-14290	H	-0.2475	1.0117	1.8S	80.5W	76	42	01m15s
06814	05	0862	Aug 29	01:24:08	2453	-14067	H	-0.3013	1.0051	8.7S	163.9E	72	19	00m33s
06854	06	0880	Sep 08	09:02:03	2322	-13844	A	-0.3493	0.9985	15.6S	46.8E	69	6	00m09s
06894	07	0898	Sep 19	16:48:21	2195	-13621	A	-0.3894	0.9919	22.2S	72.4W	67	31	00m50s
06934	08	0916	Sep 30	00:40:10	2072	-13398	A	-0.4242	0.9855	28.7S	167.5E	65	56	01m27s
06975	09	0934	Oct 11	08:40:25	1953	-13175	A	-0.4510	0.9794	34.6S	45.8E	63	82	02m01s
07016	10	0952	Oct 21	16:46:04	1839	-12952	A	-0.4727	0.9736	40.2S	76.4W	62	107	02m32s
07057	11	0970	Nov 02	00:58:17	1730	-12729	A	-0.4883	0.9684	45.1S	161.0E	61	130	02m59s
07097	12	0988	Nov 12	09:14:16	1625	-12506	A	-0.4999	0.9636	49.2S	38.8E	60	152	03m23s
07139	13	1006	Nov 23	17:34:38	1525	-12283	A	-0.5074	0.9596	52.3S	83.0W	59	171	03m43s
07181	14	1024	Dec 04	01:56:15	1429	-12060	A	-0.5130	0.9561	54.2S	156.2E	59	187	04m00s
07223	15	1042	Dec 15	10:17:55	1338	-11837	A	-0.5180	0.9533	54.8S	36.1E	59	200	04m14s
07267	16	1060	Dec 25	18:38:02	1251	-11614	A	-0.5234	0.9511	54.2S	83.7W	58	211	04m26s
07311	17	1079	Jan 06	02:55:27	1169	-11391	A	-0.5307	0.9494	52.5S	156.6E	58	219	04m35s
07356	18	1097	Jan 16	11:07:06	1092	-11168	A	-0.5420	0.9483	50.1S	37.2E	57	225	04m41s
07402	19	1115	Jan 27	19:12:32	1019	-10945	A	-0.5578	0.9477	47.3S	81.6W	56	230	04m46s
07447	20	1133	Feb 07	03:10:08	950	-10722	A	-0.5794	0.9473	44.3S	160.7E	54	235	04m49s
07492	21	1151	Feb 18	11:00:02	885	-10499	A	-0.6070	0.9473	41.6S	44.2E	52	240	04m52s
07537	22	1169	Feb 28	18:38:38	824	-10276	A	-0.6431	0.9473	39.3S	69.7W	50	248	04m55s
07583	23	1187	Mar 12	02:08:41	767	-10053	A	-0.6856	0.9474	37.8S	178.2E	47	259	04m59s
07628	24	1205	Mar 22	09:27:32	714	-9830	A	-0.7365	0.9473	37.3S	69.0E	42	278	05m04s
07674	25	1223	Apr 02	16:37:47	664	-9607	A	-0.7938	0.9471	38.2S	38.0W	37	310	05m09s
07719	26	1241	Apr 12	23:36:48	618	-9384	A	-0.8597	0.9462	41.1S	141.6W	30	376	05m14s
07763	27	1259	Apr 24	06:28:48	574	-9161	A	-0.9304	0.9445	46.9S	117.9E	21	548	05m15s
07807	28	1277	May 04	13:11:57	534	-8938	A-	-1.0071	0.9528	62.6S	34.0E	0		
07850	29	1295	May 15	19:48:34	496	-8715	P	-1.0884	0.8131	63.3S	74.5W	0		
07892	30	1313	May 26	02:19:28	460	-8492	P	-1.1731	0.6672	64.2S	178.1E	0		

07933 31 1331 Jun 06 08:46:50 427 -8269 P -1.2597 0.5183 65.1S 71.4E 0

07974 32 1349 Jun 16 15:12:24 396 -8046 P -1.3468 0.3687 66.1S 35.3W 0

08015 33 1367 Jun 27 21:36:10 366 -7823 P -1.4343 0.2188 67.1S 141.9W 0

08056 34 1385 Jul 08 04:02:10 339 -7600 Pe -1.5189 0.0745 68.1S 110.4E 0

SAROS SERIES

98

Saros series 98 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

05232 -35 0188 Jun 12 15:45:40 8710 -22406 Pb -1.5291 0.0272 66.7S 23.7W 0

05273 -34 0206 Jun 23 22:44:50 8539 -22183 P -1.4594 0.1560 65.7S 139.8W 0

05314 -33 0224 Jul 04 05:42:31 8368 -21960 P -1.3891 0.2851 64.8S 105.0E 0

05355 -32 0242 Jul 15 12:43:49 8197 -21737 P -1.3222 0.4067 63.9S 10.9W 0

05396 -31 0260 Jul 25 19:47:10 8025 -21514 P -1.2572 0.5236 63.1S 126.9W 0

05436 -30 0278 Aug 06 02:55:27 7852 -21291 P -1.1970 0.6308 62.3S 116.1E 0

05476 -29 0296 Aug 16 10:08:36 7678 -21068 P -1.1412 0.7288 61.7S 1.9W 0
 05515 -28 0314 Aug 27 17:29:13 7504 -20845 P -1.0922 0.8136 61.3S 121.7W 0
 05555 -27 0332 Sep 07 00:56:45 7329 -20622 P -1.0491 0.8869 60.9S 117.0E 0
 05595 -26 0350 Sep 18 08:30:51 7153 -20399 A- -1.0119 0.9493 60.8S 6.0W 0
 05635 -25 0368 Sep 28 16:13:03 6976 -20176 As -0.9818 0.9459 60.2S 110.3W 10 - 03m47s
 05676 -24 0386 Oct 10 00:02:21 6798 -19953 A -0.9583 0.9422 60.9S 135.8E 16 751 04m06s
 05717 -23 0404 Oct 20 07:58:52 6620 -19730 A -0.9410 0.9382 63.1S 15.7E 19 678 04m23s
 05758 -22 0422 Oct 31 16:00:07 6442 -19507 A -0.9282 0.9344 66.1S 107.0W 21 659 04m37s
 05799 -21 0440 Nov 11 00:07:01 6264 -19284 A -0.9205 0.9309 69.7S 127.6E 23 665 04m49s
 05840 -20 0458 Nov 22 08:16:28 6086 -19061 A -0.9155 0.9280 73.8S 1.2E 23 679 05m00s
 05883 -19 0476 Dec 02 16:27:33 5908 -18838 A -0.9125 0.9256 78.0S 125.5W 24 694 05m09s
 05926 -18 0494 Dec 14 00:37:53 5732 -18615 A -0.9095 0.9239 82.5S 110.7E 24 703 05m17s
 05970 -17 0512 Dec 24 08:46:57 5555 -18392 A -0.9062 0.9228 86.7S 2.2E 25 702 05m24s
 06015 -16 0531 Jan 04 16:51:18 5378 -18169 A -0.8996 0.9225 86.9S 25.1W 25 682 05m32s
 06060 -15 0549 Jan 15 00:50:28 5203 -17946 A -0.8891 0.9228 82.1S 127.7W 27 646 05m40s
 06106 -14 0567 Jan 26 08:42:29 5030 -17723 A -0.8734 0.9238 76.4S 112.3E 29 596 05m50s
 06152 -13 0585 Feb 05 16:27:40 4857 -17500 A -0.8529 0.9253 70.2S 8.9W 31 541 06m01s
 06197 -12 0603 Feb 17 00:02:03 4686 -17277 A -0.8236 0.9274 63.4S 128.4W 34 481 06m13s
 06242 -11 0621 Feb 27 07:28:15 4516 -17054 A -0.7879 0.9297 56.1S 114.2E 38 426 06m27s
 06287 -10 0639 Mar 10 14:43:34 4348 -16831 A -0.7434 0.9323 48.3S 0.3W 42 375 06m42s
 06333 -09 0657 Mar 20 21:51:04 4181 -16608 A -0.6929 0.9350 40.4S 112.4W 46 332 06m56s
 06379 -08 0675 Apr 01 04:46:39 4016 -16385 A -0.6326 0.9377 32.1S 138.6E 51 296 07m10s
 06424 -07 0693 Apr 11 11:36:01 3853 -16162 A -0.5674 0.9403 23.9S 31.8E 55 266 07m21s
 06468 -06 0711 Apr 22 18:15:28 3692 -15939 A -0.4937 0.9427 15.6S 72.2W 60 242 07m29s
 06511 -05 0729 May 03 00:49:47 3534 -15716 A -0.4160 0.9448 7.7S 174.3W 65 223 07m31s
 06553 -04 0747 May 14 07:16:41 3378 -15493 A -0.3320 0.9466 0.1N 86.1E 71 208 07m27s
 06595 -03 0765 May 24 13:41:46 3224 -15270 A -0.2465 0.9480 7.3N 12.3W 76 197 07m17s
 06636 -02 0783 Jun 04 20:03:18 3074 -15047 A -0.1578 0.9489 13.9N 109.0W 81 190 07m01s

06677	-01	0801	Jun 15	02:24:30	2927	-14824	A	-0.0686	0.9495	19.8N	155.3E	86	186	06m41s
06718	00	0819	Jun 26	08:46:33	2783	-14601	Am	0.0201	0.9495	24.7N	60.3E	89	185	06m22s
06758	01	0837	Jul 06	15:11:47	2642	-14378	A	0.1066	0.9491	28.5N	34.6W	84	188	06m05s
06798	02	0855	Jul 17	21:41:01	2506	-14155	A	0.1899	0.9484	31.2N	130.0W	79	193	05m52s
06838	03	0873	Jul 28	04:15:40	2373	-13932	A	0.2692	0.9473	32.8N	133.6E	74	201	05m44s
06878	04	0891	Aug 08	10:57:55	2244	-13709	A	0.3427	0.9458	33.4N	35.3E	70	211	05m42s
06918	05	0909	Aug 18	17:48:28	2120	-13486	A	0.4100	0.9442	33.1N	65.4W	66	224	05m44s
06958	06	0927	Aug 30	00:47:33	2000	-13263	A	0.4706	0.9425	32.2N	168.8W	62	238	05m51s
07000	07	0945	Sep 09	07:56:57	1884	-13040	A	0.5232	0.9407	30.8N	84.6E	58	253	06m03s
07041	08	0963	Sep 20	15:16:29	1773	-12817	A	0.5678	0.9391	29.1N	25.3W	55	269	06m18s
07081	09	0981	Sep 30	22:46:30	1666	-12594	A	0.6044	0.9376	27.4N	138.5W	53	284	06m35s
07123	10	0999	Oct 12	06:24:46	1564	-12371	A	0.6349	0.9364	25.7N	105.8E	50	299	06m55s
07165	11	1017	Oct 22	14:13:22	1466	-12148	A	0.6573	0.9356	24.1N	13.1W	49	311	07m14s
07207	12	1035	Nov 02	22:09:33	1373	-11925	A	0.6737	0.9352	22.7N	134.1W	47	320	07m32s
07250	13	1053	Nov 13	06:13:19	1285	-11702	A	0.6846	0.9355	21.6N	102.7E	47	324	07m44s
07293	14	1071	Nov 24	14:21:36	1201	-11479	A	0.6922	0.9362	20.8N	21.8W	46	325	07m51s
07337	15	1089	Dec 04	22:34:53	1122	-11256	A	0.6963	0.9378	20.5N	147.6W	46	321	07m48s
07383	16	1107	Dec 16	06:49:58	1047	-11033	A	0.6995	0.9398	20.8N	86.1E	45	312	07m35s
07429	17	1125	Dec 26	15:05:32	976	-10810	A	0.7027	0.9426	21.8N	40.3W	45	298	07m10s
07474	18	1144	Jan 06	23:19:57	910	-10587	A	0.7075	0.9459	23.5N	166.6W	45	282	06m36s
07519	19	1162	Jan 17	07:31:48	848	-10364	A	0.7150	0.9499	26.1N	67.7E	44	262	05m54s
07565	20	1180	Jan 28	15:39:21	789	-10141	A	0.7267	0.9542	29.5N	57.2W	43	242	05m08s
07610	21	1198	Feb 07	23:41:19	735	-9918	A	0.7437	0.9590	33.9N	178.9E	42	221	04m20s
07655	22	1216	Feb 19	07:37:26	683	-9695	A	0.7663	0.9641	39.1N	56.0E	40	200	03m33s
07701	23	1234	Mar 01	15:27:01	636	-9472	A	0.7947	0.9693	45.2N	66.0W	37	180	02m49s
07746	24	1252	Mar 11	23:08:36	591	-9249	A	0.8306	0.9745	52.2N	172.8E	34	163	02m09s
07790	25	1270	Mar 23	06:43:33	549	-9026	A	0.8726	0.9795	60.0N	50.7E	29	149	01m35s
07833	26	1288	Apr 02	14:11:28	510	-8803	A	0.9211	0.9840	68.5N	76.4W	22	147	01m07s

07875	27	1306	Apr 13	21:34:09	474	-8580	A	0.9745	0.9872	75.5N	130.6E	12	214	00m47s
07917	28	1324	Apr 24	04:49:54	440	-8357	P	1.0343	0.9272	70.3N	31.7W	0		
07958	29	1342	May 05	12:02:39	408	-8134	P	1.0972	0.8150	69.4N	152.3W	0		
07999	30	1360	May 15	19:11:02	378	-7911	P	1.1647	0.6932	68.5N	88.7E	0		
08040	31	1378	May 27	02:18:09	350	-7688	P	1.2336	0.5674	67.5N	29.3W	0		
08081	32	1396	Jun 06	09:23:32	323	-7465	P	1.3046	0.4365	66.5N	146.5W	0		
08121	33	1414	Jun 17	16:30:43	298	-7242	P	1.3749	0.3061	65.5N	96.4E	0		
08161	34	1432	Jun 27	23:39:43	274	-7019	P	1.4445	0.1760	64.6N	20.9W	0		
08201	35	1450	Jul 09	06:51:32	251	-6796	Pe	1.5125	0.0484	63.8N	138.5W	0		

SAROS SERIES

99

Saros series 99 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

05339	-35	0235	Jun 03	07:49:57	8264	-21825	Pb	1.5417	0.0318	64.0N	51.6W	0		
-------	-----	------	--------	----------	------	--------	----	--------	--------	-------	-------	---	--	--

05380	-34	0253	Jun 13	14:16:07	8093	-21602	P	1.4545	0.1817	64.9N	158.5W	0
05421	-33	0271	Jun 24	20:44:32	7920	-21379	P	1.3681	0.3308	65.9N	93.6E	0
05461	-32	0289	Jul 05	03:18:00	7747	-21156	P	1.2845	0.4754	66.9N	16.0W	0
05500	-31	0307	Jul 16	09:55:38	7573	-20933	P	1.2031	0.6164	67.9N	127.0W	0
05539	-30	0325	Jul 26	16:41:44	7398	-20710	P	1.1276	0.7472	68.9N	119.3E	0
05579	-29	0343	Aug 06	23:35:10	7222	-20487	P	1.0571	0.8695	69.8N	3.1E	0
05619	-28	0361	Aug 17	06:38:48	7046	-20264	An	0.9936	0.9481	73.8N	128.0W	5 - 03m12s
05660	-27	0379	Aug 28	13:51:24	6869	-20041	A	0.9364	0.9517	71.7N	55.2E	20 511 03m28s
05701	-26	0397	Sep 07	21:15:23	6691	-19818	A	0.8876	0.9531	63.2N	76.1W	27 372 03m43s
05742	-25	0415	Sep 19	04:49:16	6513	-19595	A	0.8460	0.9539	55.3N	160.3E	32 314 03m58s
05783	-24	0433	Sep 29	12:33:08	6334	-19372	A	0.8118	0.9546	48.3N	37.5E	35 281 04m11s
05823	-23	0451	Oct 10	20:27:02	6156	-19149	A	0.7850	0.9551	42.2N	86.3W	38 262 04m24s
05865	-22	0469	Oct 21	04:30:00	5978	-18926	A	0.7646	0.9559	36.9N	148.4E	40 247 04m33s
05908	-21	0487	Nov 01	12:41:08	5801	-18703	A	0.7505	0.9568	32.6N	21.6E	41 236 04m39s
05952	-20	0505	Nov 11	20:57:42	5625	-18480	A	0.7399	0.9582	29.0N	106.2W	42 225 04m39s
05996	-19	0523	Nov 23	05:20:29	5448	-18257	A	0.7339	0.9601	26.3N	124.6E	43 213 04m33s
06041	-18	0541	Dec 03	13:45:53	5272	-18034	A	0.7288	0.9625	24.3N	5.0W	43 199 04m19s
06088	-17	0559	Dec 14	22:13:23	5098	-17811	A	0.7250	0.9655	23.0N	135.1W	43 181 03m58s
06134	-16	0577	Dec 25	06:39:51	4925	-17588	A	0.7194	0.9691	22.2N	95.2E	44 160 03m30s
06180	-15	0596	Jan 05	15:05:31	4753	-17365	A	0.7123	0.9733	22.0N	34.2W	44 135 02m56s
06225	-14	0614	Jan 15	23:27:23	4583	-17142	A	0.7011	0.9782	22.2N	162.5W	45 108 02m19s
06270	-13	0632	Jan 27	07:45:01	4414	-16919	A	0.6856	0.9836	22.7N	70.5E	47 78 01m40s
06315	-12	0650	Feb 06	15:56:44	4247	-16696	A	0.6641	0.9896	23.5N	54.7W	48 48 01m01s
06362	-11	0668	Feb 18	00:02:44	4081	-16473	A	0.6371	0.9959	24.5N	178.1W	50 18 00m23s
06407	-10	0686	Feb 28	08:00:49	3917	-16250	H	0.6026	1.0026	25.7N	61.0E	53 11 00m14s
06451	-09	0704	Mar 10	15:52:29	3755	-16027	H	0.5619	1.0093	27.1N	57.8W	56 38 00m49s
06494	-08	0722	Mar 21	23:36:39	3596	-15804	T	0.5141	1.0162	28.5N	174.2W	59 64 01m23s
06536	-07	0740	Apr 01	07:15:31	3439	-15581	T	0.4609	1.0229	29.8N	71.4E	62 87 01m55s

06578	-06	0758	Apr 12	14:46:19	3284	-15358	T	0.4002	1.0295	30.8N	40.4W	66	108	02m27s
06619	-05	0776	Apr 22	22:13:29	3133	-15135	T	0.3357	1.0356	31.4N	150.8W	70	127	02m58s
06661	-04	0794	May 04	05:34:59	2984	-14912	T	0.2658	1.0413	31.2N	100.6E	74	143	03m30s
06702	-03	0812	May 14	12:55:16	2839	-14689	T	0.1939	1.0464	30.3N	7.6W	79	157	04m00s
06743	-02	0830	May 25	20:11:21	2697	-14466	T	0.1178	1.0508	28.4N	114.9W	83	170	04m31s
06782	-01	0848	Jun 05	03:29:17	2559	-14243	T	0.0424	1.0545	25.6N	137.0E	87	180	04m59s
06822	00	0866	Jun 16	10:46:25	2425	-14020	T	-0.0341	1.0574	21.8N	28.4E	88	189	05m24s
06862	01	0884	Jun 26	18:06:43	2295	-13797	Tm	-0.1087	1.0596	17.2N	81.6W	84	197	05m43s
06902	02	0902	Jul 08	01:28:49	2169	-13574	T	-0.1825	1.0609	11.7N	167.1E	80	203	05m55s
06942	03	0920	Jul 18	08:56:43	2047	-13351	T	-0.2519	1.0615	5.8N	53.7E	75	209	05m59s
06983	04	0938	Jul 29	16:29:29	1929	-13128	T	-0.3177	1.0614	0.5S	61.5W	71	212	05m55s
07024	05	0956	Aug 09	00:08:26	1816	-12905	T	-0.3787	1.0607	7.2S	178.7W	68	215	05m43s
07065	06	0974	Aug 20	07:54:38	1707	-12682	T	-0.4339	1.0594	13.9S	61.9E	64	216	05m25s
07107	07	0992	Aug 30	15:48:52	1603	-12459	T	-0.4826	1.0577	20.7S	59.7W	61	216	05m04s
07149	08	1010	Sep 10	23:51:11	1504	-12236	T	-0.5251	1.0557	27.5S	176.7E	58	215	04m42s
07191	09	1028	Sep 21	08:01:19	1409	-12013	T	-0.5611	1.0535	34.0S	51.3E	56	212	04m19s
07233	10	1046	Oct 02	16:19:55	1319	-11790	T	-0.5904	1.0512	40.3S	75.8W	54	209	03m58s
07277	11	1064	Oct 13	00:46:25	1234	-11567	T	-0.6133	1.0490	46.2S	156.0E	52	205	03m40s
07321	12	1082	Oct 24	09:19:34	1153	-11344	T	-0.6308	1.0470	51.7S	27.3E	51	201	03m24s
07366	13	1100	Nov 03	17:59:41	1076	-11121	T	-0.6430	1.0453	56.5S	101.5W	50	197	03m11s
07411	14	1118	Nov 15	02:45:13	1004	-10898	T	-0.6511	1.0439	60.4S	130.5E	49	194	03m01s
07456	15	1136	Nov 25	11:35:06	936	-10675	T	-0.6557	1.0430	63.3S	4.0E	49	191	02m54s
07501	16	1154	Dec 06	20:26:36	872	-10452	T	-0.6593	1.0425	64.8S	121.0W	48	190	02m50s
07546	17	1172	Dec 17	05:20:06	812	-10229	T	-0.6615	1.0426	64.6S	114.3E	48	190	02m49s
07592	18	1190	Dec 28	14:12:58	756	-10006	T	-0.6648	1.0430	63.1S	11.2W	48	193	02m50s
07638	19	1209	Jan 07	23:03:30	703	-9783	T	-0.6701	1.0439	60.6S	137.9W	48	197	02m54s
07684	20	1227	Jan 19	07:50:13	654	-9560	T	-0.6788	1.0450	57.4S	94.3E	47	204	02m59s
07729	21	1245	Jan 29	16:32:07	608	-9337	T	-0.6916	1.0465	54.0S	33.8W	46	213	03m05s

07773	22	1263	Feb 10	01:08:09	565	-9114	T	-0.7093	1.0480	50.7S	161.5W	45	224	03m13s
07816	23	1281	Feb 20	09:36:20	525	-8891	T	-0.7337	1.0496	47.8S	72.1E	43	239	03m22s
07859	24	1299	Mar 03	17:57:31	488	-8668	T	-0.7639	1.0510	45.5S	53.0W	40	257	03m30s
07901	25	1317	Mar 14	02:10:14	453	-8445	T	-0.8008	1.0522	44.2S	175.9W	37	283	03m37s
07942	26	1335	Mar 25	10:14:54	420	-8222	T	-0.8444	1.0528	44.2S	63.3E	32	319	03m42s
07983	27	1353	Apr 04	18:11:06	389	-7999	T	-0.8949	1.0527	46.0S	54.7W	26	383	03m41s
08024	28	1371	Apr 16	02:00:13	360	-7776	T	-0.9508	1.0512	50.7S	168.9W	18	545	03m30s
08065	29	1389	Apr 26	09:42:22	333	-7553	P	-1.0124	0.9944	62.2S	91.5E	0		
08105	30	1407	May 07	17:17:22	307	-7330	P	-1.0794	0.8660	62.9S	31.5W	0		
08145	31	1425	May 18	00:47:36	283	-7107	P	-1.1498	0.7309	63.7S	153.5W	0		
08185	32	1443	May 29	08:13:09	260	-6884	P	-1.2234	0.5897	64.6S	85.3E	0		
08225	33	1461	Jun 08	15:36:19	238	-6661	P	-1.2986	0.4459	65.5S	35.5W	0		
08265	34	1479	Jun 19	22:56:07	218	-6438	P	-1.3756	0.2991	66.5S	155.9W	0		
08305	35	1497	Jun 30	06:16:37	198	-6215	P	-1.4514	0.1556	67.5S	83.1E	0		
08347	36	1515	Jul 11	13:36:52	180	-5992	Pe	-1.5262	0.0153	68.5S	38.2W	0		

SAROS SERIES

100

Saros series 100 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

05405	-36	0264	May 13	08:17:18	7988	-21467	Pb	-1.4730	0.1096	69.3S	115.9E	0	
05445	-35	0282	May 24	15:41:33	7815	-21244	P	-1.4000	0.2495	68.4S	7.7W	0	
05485	-34	0300	Jun 03	23:05:01	7642	-21021	P	-1.3256	0.3929	67.4S	130.6W	0	
05524	-33	0318	Jun 15	06:29:09	7467	-20798	P	-1.2512	0.5368	66.4S	106.9E	0	
05564	-32	0336	Jun 25	13:54:25	7292	-20575	P	-1.1774	0.6799	65.4S	15.6W	0	
05604	-31	0354	Jul 06	21:23:38	7116	-20352	P	-1.1062	0.8178	64.5S	138.6W	0	
05644	-30	0372	Jul 17	04:56:56	6939	-20129	P	-1.0379	0.9497	63.6S	97.7E	0	
05685	-29	0390	Jul 28	12:35:00	6761	-19906	T	-0.9732	1.0595	52.8S	12.4W	13	873 04m06s
05726	-28	0408	Aug 07	20:19:36	6583	-19683	T	-0.9138	1.0609	44.3S	126.4W	24	487 04m26s
05767	-27	0426	Aug 19	04:11:14	6405	-19460	T	-0.8601	1.0605	40.3S	115.3E	30	382 04m27s
05808	-26	0444	Aug 29	12:10:31	6226	-19237	T	-0.8127	1.0590	38.6S	5.5W	35	326 04m19s
05849	-25	0462	Sep 09	20:16:30	6048	-19014	T	-0.7709	1.0569	38.5S	128.1W	39	288 04m07s
05892	-24	0480	Sep 20	04:31:03	5871	-18791	T	-0.7364	1.0544	39.8S	107.1E	42	260 03m52s
05935	-23	0498	Oct 01	12:53:06	5695	-18568	T	-0.7082	1.0515	42.0S	19.5W	45	238 03m37s
05979	-22	0516	Oct 11	21:22:23	5518	-18345	T	-0.6864	1.0487	44.9S	147.7W	46	219 03m23s
06023	-21	0534	Oct 23	05:58:25	5341	-18122	T	-0.6704	1.0459	48.4S	82.8E	48	204 03m09s
06069	-20	0552	Nov 02	14:40:25	5167	-17899	T	-0.6597	1.0433	52.2S	47.4W	48	191 02m57s
06115	-19	0570	Nov 13	23:27:26	4993	-17676	T	-0.6534	1.0409	56.0S	177.8W	49	180 02m46s
06162	-18	0588	Nov 24	08:16:26	4821	-17453	T	-0.6490	1.0390	59.3S	53.1E	49	172 02m38s
06207	-17	0606	Dec 05	17:08:42	4650	-17230	T	-0.6476	1.0374	62.1S	75.0W	49	165 02m31s
06252	-16	0624	Dec 16	02:00:22	4480	-17007	T	-0.6465	1.0364	63.6S	159.0E	49	161 02m28s
06297	-15	0642	Dec 27	10:51:27	4312	-16784	T	-0.6448	1.0358	63.7S	34.0E	50	158 02m27s

06343	-14	0661	Jan 06	19:37:59	4146	-16561	T	-0.6398	1.0357	62.1S	90.6W	50	157	02m29s
06389	-13	0679	Jan 18	04:21:40	3982	-16338	T	-0.6329	1.0360	59.1S	143.5E	50	157	02m33s
06433	-12	0697	Jan 28	12:58:36	3819	-16115	T	-0.6210	1.0367	54.9S	16.9E	51	158	02m41s
06476	-11	0715	Feb 08	21:28:51	3659	-15892	T	-0.6040	1.0377	49.8S	110.1W	53	159	02m50s
06519	-10	0733	Feb 19	05:50:33	3500	-15669	T	-0.5806	1.0389	44.0S	123.5E	54	160	03m03s
06561	-09	0751	Mar 02	14:04:34	3345	-15446	T	-0.5512	1.0401	37.8S	2.1W	56	160	03m16s
06603	-08	0769	Mar 12	22:09:04	3192	-15223	T	-0.5145	1.0413	31.1S	126.0W	59	160	03m32s
06644	-07	0787	Mar 24	06:05:01	3043	-15000	T	-0.4715	1.0422	24.2S	111.9E	62	159	03m46s
06686	-06	0805	Apr 03	13:51:56	2896	-14777	T	-0.4214	1.0429	17.1S	8.1W	65	157	04m00s
06727	-05	0823	Apr 14	21:31:15	2753	-14554	T	-0.3655	1.0431	9.9S	126.1W	68	154	04m11s
06767	-04	0841	Apr 25	05:01:45	2613	-14331	T	-0.3029	1.0429	2.8S	118.4E	72	150	04m17s
06807	-03	0859	May 06	12:26:38	2478	-14108	T	-0.2362	1.0420	4.2N	4.7E	76	144	04m17s
06847	-02	0877	May 16	19:44:56	2346	-13885	T	-0.1645	1.0406	10.9N	106.7W	81	138	04m09s
06887	-01	0895	May 28	03:00:09	2218	-13662	Tm	-0.0909	1.0383	17.0N	143.3E	85	129	03m54s
06927	00	0913	Jun 07	10:09:57	2094	-13439	T	-0.0134	1.0354	22.6N	35.5E	89	119	03m33s
06967	01	0931	Jun 18	17:19:48	1975	-13216	T	0.0633	1.0318	27.3N	71.4W	86	108	03m06s
07008	02	0949	Jun 29	00:26:52	1860	-12993	T	0.1417	1.0274	31.3N	176.8W	82	94	02m36s
07049	03	0967	Jul 10	07:36:08	1750	-12770	T	0.2173	1.0225	34.1N	78.0E	77	79	02m04s
07090	04	0985	Jul 20	14:45:03	1644	-12547	T	0.2923	1.0170	35.9N	26.6W	73	61	01m31s
07132	05	1003	Jul 31	21:59:08	1543	-12324	H	0.3621	1.0110	36.6N	132.5W	69	41	00m58s
07174	06	1021	Aug 11	05:15:54	1446	-12101	H	0.4287	1.0046	36.6N	120.8E	64	17	00m24s
07216	07	1039	Aug 22	12:38:24	1354	-11878	A	0.4896	0.9980	35.8N	12.1E	60	8	00m10s
07259	08	1057	Sep 01	20:06:25	1267	-11655	A	0.5448	0.9912	34.6N	98.6W	57	37	00m46s
07303	09	1075	Sep 13	03:41:46	1184	-11432	A	0.5929	0.9844	33.1N	148.1E	53	67	01m23s
07347	10	1093	Sep 23	11:23:51	1106	-11209	A	0.6346	0.9777	31.5N	32.4E	50	101	02m03s
07393	11	1111	Oct 04	19:12:31	1032	-10986	A	0.6701	0.9712	30.1N	85.5W	48	136	02m44s
07438	12	1129	Oct 15	03:08:33	962	-10763	A	0.6986	0.9651	28.7N	154.2E	45	172	03m27s
07483	13	1147	Oct 26	11:11:07	897	-10540	A	0.7210	0.9595	27.6N	31.7E	44	207	04m11s

07528	14	1165	Nov 05	19:19:17	835	-10317	A	0.7379	0.9544	26.7N	92.6W	42	242	04m55s
07574	15	1183	Nov 17	03:32:02	777	-10094	A	0.7503	0.9500	26.2N	141.7E	41	274	05m38s
07619	16	1201	Nov 27	11:48:14	724	-9871	A	0.7592	0.9461	26.0N	15.0E	40	302	06m16s
07665	17	1219	Dec 08	20:06:08	673	-9648	A	0.7661	0.9430	26.3N	112.3W	40	327	06m48s
07711	18	1237	Dec 19	04:23:11	626	-9425	A	0.7728	0.9404	27.3N	120.5E	39	348	07m11s
07756	19	1255	Dec 30	12:39:09	582	-9202	A	0.7798	0.9385	28.9N	6.5W	39	365	07m23s
07800	20	1274	Jan 09	20:51:23	541	-8979	A	0.7886	0.9372	31.3N	132.8W	38	380	07m26s
07843	21	1292	Jan 21	04:58:17	502	-8756	A	0.8014	0.9363	34.6N	102.0E	36	395	07m17s
07885	22	1310	Jan 31	12:57:57	467	-8533	A	0.8194	0.9358	38.9N	21.9W	35	415	07m01s
07926	23	1328	Feb 11	20:50:10	433	-8310	A	0.8426	0.9356	44.1N	144.7W	32	442	06m38s
07967	24	1346	Feb 22	04:33:47	401	-8087	A	0.8720	0.9354	50.4N	93.4E	29	488	06m11s
08008	25	1364	Mar 04	12:06:40	372	-7864	A	0.9095	0.9352	57.9N	28.8W	24	580	05m41s
08049	26	1382	Mar 15	19:30:25	344	-7641	A	0.9536	0.9344	66.6N	156.5W	17	827	05m10s
08090	27	1400	Mar 26	02:43:41	317	-7418	A+	1.0058	0.9506	72.0N	34.0E	0		
08130	28	1418	Apr 06	09:48:10	293	-7195	P	1.0643	0.8513	71.5N	86.1W	0		
08170	29	1436	Apr 16	16:42:11	269	-6972	P	1.1306	0.7385	70.8N	157.0E	0		
08210	30	1454	Apr 27	23:29:09	247	-6749	P	1.2018	0.6169	70.0N	42.5E	0		
08249	31	1472	May 08	06:07:58	226	-6526	P	1.2791	0.4848	69.1N	69.4W	0		
08289	32	1490	May 19	12:41:05	206	-6303	P	1.3600	0.3462	68.1N	179.2W	0		
08330	33	1508	May 29	19:09:02	187	-6080	P	1.4443	0.2019	67.1N	72.8E	0		
08372	34	1526	Jun 10	01:34:33	170	-5857	Pe	1.5298	0.0557	66.1N	34.1W	0		

SAROS SERIES

Saros series 101 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

05548	-35	0329 May 15	13:16:33	7361	-20663	Pb	1.5194	0.0460	62.9N	122.2W	0		
05588	-34	0347 May 26	20:15:24	7185	-20440	P	1.4489	0.1753	63.6N	123.1E	0		
05628	-33	0365 Jun 06	03:10:31	7009	-20217	P	1.3761	0.3084	64.4N	9.0E	0		
05669	-32	0383 Jun 17	10:04:04	6831	-19994	P	1.3025	0.4418	65.3N	105.0W	0		
05710	-31	0401 Jun 27	16:57:24	6653	-19771	P	1.2292	0.5739	66.3N	140.7E	0		
05751	-30	0419 Jul 08	23:50:44	6475	-19548	P	1.1565	0.7035	67.3N	26.0E	0		
05792	-29	0437 Jul 19	06:47:24	6296	-19325	P	1.0873	0.8256	68.3N	90.1W	0		
05832	-28	0455 Jul 30	13:47:01	6118	-19102	P	1.0212	0.9406	69.3N	152.6E	0		
05875	-27	0473 Aug 09	20:51:51	5941	-18879	A	0.9601	0.9654	78.2N	19.0W	16	463	02m13s
05918	-26	0491 Aug 21	04:01:41	5764	-18656	A	0.9036	0.9621	71.1N	170.7W	25	323	02m44s
05962	-25	0509 Aug 31	11:18:53	5587	-18433	A	0.8538	0.9579	62.5N	65.1E	31	294	03m22s
06006	-24	0527 Sep 11	18:42:58	5411	-18210	A	0.8106	0.9532	54.6N	54.3W	36	290	04m05s
06051	-23	0545 Sep 22	02:14:00	5235	-17987	A	0.7737	0.9485	47.4N	173.0W	39	296	04m53s
06097	-22	0563 Oct 03	09:52:51	5061	-17764	A	0.7438	0.9438	41.0N	67.4E	42	307	05m44s
06143	-21	0581 Oct 13	17:39:23	4889	-17541	A	0.7205	0.9393	35.4N	53.5W	44	321	06m38s
06189	-20	0599 Oct 25	01:32:36	4717	-17318	A	0.7033	0.9352	30.6N	175.5W	45	337	07m32s
06234	-19	0617 Nov 04	09:31:18	4547	-17095	A	0.6910	0.9314	26.6N	61.4E	46	353	08m25s

06279	-18	0635	Nov 15	17:34:25	4379	-16872	A	0.6828	0.9283	23.4N	62.5W	47	367	09m12s
06325	-17	0653	Nov 26	01:41:15	4212	-16649	A	0.6779	0.9257	21.1N	172.8E	47	380	09m51s
06372	-16	0671	Dec 07	09:48:18	4046	-16426	A	0.6733	0.9238	19.4N	48.2E	48	389	10m18s
06417	-15	0689	Dec 17	17:56:06	3883	-16203	A	0.6698	0.9225	18.4N	76.4W	48	394	10m31s
06461	-14	0707	Dec 29	02:00:34	3722	-15980	A	0.6636	0.9219	17.9N	159.8E	48	392	10m30s
06503	-13	0726	Jan 08	10:02:27	3563	-15757	A	0.6558	0.9219	18.0N	36.8E	49	387	10m16s
06545	-12	0744	Jan 19	17:56:37	3406	-15534	A	0.6418	0.9227	18.4N	84.1W	50	375	09m52s
06587	-11	0762	Jan 30	01:45:52	3252	-15311	A	0.6242	0.9239	19.2N	156.4E	51	360	09m22s
06628	-10	0780	Feb 10	09:25:34	3101	-15088	A	0.5986	0.9257	20.2N	39.7E	53	341	08m49s
06669	-09	0798	Feb 20	16:57:03	2954	-14865	A	0.5668	0.9279	21.3N	74.5W	55	321	08m15s
06710	-08	0816	Mar 03	00:17:49	2809	-14642	A	0.5262	0.9304	22.6N	174.4E	58	300	07m45s
06751	-07	0834	Mar 14	07:30:30	2668	-14419	A	0.4792	0.9331	23.9N	65.8E	61	280	07m17s
06791	-06	0852	Mar 24	14:33:08	2531	-14196	A	0.4238	0.9359	25.1N	39.7W	65	260	06m53s
06831	-05	0870	Apr 04	21:26:39	2397	-13973	A	0.3608	0.9388	26.0N	142.3W	69	242	06m35s
06871	-04	0888	Apr 15	04:11:50	2268	-13750	A	0.2910	0.9414	26.5N	117.7E	73	225	06m22s
06911	-03	0906	Apr 26	10:50:32	2142	-13527	A	0.2158	0.9440	26.4N	19.6E	77	211	06m15s
06951	-02	0924	May 06	17:22:41	2021	-13304	A	0.1351	0.9462	25.4N	76.7W	82	200	06m12s
06992	-01	0942	May 17	23:50:31	1905	-13081	A	0.0504	0.9481	23.4N	172.0W	87	191	06m15s
07033	00	0960	May 28	06:15:21	1793	-12858	Am	-0.0369	0.9497	20.3N	93.1E	88	185	06m21s
07073	01	0978	Jun 08	12:39:24	1685	-12635	A	-0.1248	0.9507	16.3N	2.2W	83	182	06m30s
07115	02	0996	Jun 18	19:01:57	1582	-12412	A	-0.2142	0.9514	11.3N	97.9W	78	182	06m39s
07157	03	1014	Jun 30	01:27:23	1484	-12189	A	-0.3013	0.9515	5.5N	165.0E	72	186	06m45s
07199	04	1032	Jul 10	07:55:08	1390	-11966	A	-0.3866	0.9513	1.1S	66.4E	67	193	06m46s
07242	05	1050	Jul 21	14:29:16	1301	-11743	A	-0.4670	0.9506	8.2S	34.4W	62	204	06m42s
07286	06	1068	Jul 31	21:07:35	1216	-11520	A	-0.5441	0.9495	15.8S	137.0W	57	220	06m33s
07330	07	1086	Aug 12	03:55:33	1136	-11297	A	-0.6134	0.9482	23.5S	117.3E	52	239	06m20s
07376	08	1104	Aug 22	10:50:41	1060	-11074	A	-0.6772	0.9466	31.5S	9.2E	47	264	06m04s
07421	09	1122	Sep 02	17:56:11	989	-10851	A	-0.7328	0.9449	39.3S	102.0W	43	295	05m48s

07466	10	1140	Sep 13	01:10:24	922	-10628	A	-0.7820	0.9431	47.1S	144.0E	38	334	05m31s
07511	11	1158	Sep 24	08:36:09	859	-10405	A	-0.8223	0.9415	54.6S	26.5E	34	378	05m15s
07556	12	1176	Oct 04	16:11:30	800	-10182	A	-0.8551	0.9400	61.7S	94.1W	31	428	05m00s
07601	13	1194	Oct 15	23:56:12	744	-9959	A	-0.8811	0.9389	68.2S	142.0E	28	481	04m45s
07646	14	1212	Oct 26	07:50:26	693	-9736	A	-0.9000	0.9382	74.2S	14.8E	25	533	04m33s
07692	15	1230	Nov 06	15:52:58	644	-9513	A	-0.9131	0.9380	79.6S	116.1W	24	574	04m21s
07738	16	1248	Nov 17	00:02:16	599	-9290	A	-0.9210	0.9385	84.4S	107.9E	22	599	04m10s
07782	17	1266	Nov 28	08:16:01	557	-9067	A	-0.9262	0.9396	88.5S	67.7W	22	608	04m00s
07825	18	1284	Dec 08	16:34:01	517	-8844	A	-0.9284	0.9414	86.2S	56.2E	21	598	03m49s
07868	19	1302	Dec 20	00:53:51	480	-8621	A	-0.9302	0.9438	82.1S	85.3W	21	578	03m37s
07910	20	1320	Dec 30	09:13:30	446	-8398	A	-0.9327	0.9468	77.9S	141.3E	21	553	03m25s
07951	21	1339	Jan 10	17:31:41	414	-8175	A	-0.9371	0.9504	73.9S	10.9E	20	531	03m11s
07992	22	1357	Jan 21	01:46:45	383	-7952	A	-0.9448	0.9543	70.1S	116.8W	19	517	02m56s
08033	23	1375	Feb 01	09:57:38	355	-7729	A	-0.9565	0.9586	66.8S	118.4E	16	525	02m39s
08074	24	1393	Feb 11	18:02:26	328	-7506	A	-0.9742	0.9628	64.1S	1.4W	12	618	02m22s
08114	25	1411	Feb 23	02:01:36	302	-7283	As	-0.9972	0.9654	61.6S	105.7W	1	-	02m05s
08154	26	1429	Mar 05	09:54:08	278	-7060	P	-1.0266	0.9336	61.0S	129.6E	0		
08194	27	1447	Mar 16	17:39:01	255	-6837	P	-1.0629	0.8715	61.0S	4.7E	0		
08234	28	1465	Mar 27	01:17:27	234	-6614	P	-1.1052	0.7976	61.1S	118.7W	0		
08274	29	1483	Apr 07	08:49:08	213	-6391	P	-1.1536	0.7117	61.5S	119.5E	0		
08314	30	1501	Apr 17	16:15:52	194	-6168	P	-1.2071	0.6155	61.9S	1.1W	0		
08356	31	1519	Apr 28	23:35:43	177	-5945	P	-1.2666	0.5070	62.5S	120.2W	0		
08397	32	1537	May 09	06:52:57	160	-5722	P	-1.3289	0.3922	63.2S	121.2E	0		
08438	33	1555	May 20	14:06:06	146	-5499	P	-1.3947	0.2696	64.0S	3.3E	0		
08479	34	1573	May 30	21:18:24	133	-5276	P	-1.4619	0.1436	64.9S	114.6W	0		
08520	35	1591	Jun 21	04:28:43	123	-5053	Pe	-1.5311	0.0129	65.8S	127.7E	0		

SAROS SERIES

102

Saros series 102 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

05653	-34	0376 May 05	05:09:34	6901	-20082	Pb	-1.5322	0.0487	69.9S	166.1E	0		
05694	-33	0394 May 16	11:41:58	6724	-19859	P	-1.4503	0.1889	69.1S	55.1E	0		
05735	-32	0412 May 26	18:11:23	6545	-19636	P	-1.3644	0.3368	68.1S	54.6W	0		
05776	-31	0430 Jun 07	00:41:34	6367	-19413	P	-1.2780	0.4865	67.1S	164.0W	0		
05816	-30	0448 Jun 17	07:12:15	6189	-19190	P	-1.1908	0.6385	66.1S	87.0E	0		
05858	-29	0466 Jun 28	13:47:21	6011	-18967	P	-1.1058	0.7870	65.1S	22.7W	0		
05901	-28	0484 Jul 08	20:26:40	5834	-18744	P	-1.0229	0.9321	64.1S	133.0W	0		
05945	-27	0502 Jul 20	03:11:36	5657	-18521	A	-0.9434	0.9595	46.9S	132.5E	19	442	03m52s
05989	-26	0520 Jul 30	10:04:27	5480	-18298	A	-0.8693	0.9626	38.3S	29.5E	29	268	03m45s
06033	-25	0538 Aug 10	17:05:14	5305	-18075	A	-0.8005	0.9646	33.5S	76.3W	37	208	03m35s
06079	-24	0556 Aug 21	00:15:45	5130	-17852	A	-0.7387	0.9659	31.0S	175.3E	42	177	03m24s

06125	-23	0574	Sep 01	07:35:04	4957	-17629	A	-0.6831	0.9668	30.1S	64.7E	47	160	03m15s
06171	-22	0592	Sep 11	15:06:02	4785	-17406	A	-0.6360	0.9673	30.6S	48.8W	50	149	03m07s
06216	-21	0610	Sep 22	22:46:30	4614	-17183	A	-0.5956	0.9678	32.2S	164.6W	53	142	03m00s
06261	-20	0628	Oct 03	06:37:26	4445	-16960	A	-0.5632	0.9682	34.6S	77.1E	56	136	02m54s
06306	-19	0646	Oct 14	14:37:46	4277	-16737	A	-0.5375	0.9688	37.6S	43.2W	57	132	02m48s
06353	-18	0664	Oct 24	22:47:46	4111	-16514	A	-0.5193	0.9695	40.9S	165.6W	59	127	02m42s
06399	-17	0682	Nov 05	07:04:37	3947	-16291	A	-0.5056	0.9706	44.3S	71.0E	59	122	02m35s
06443	-16	0700	Nov 15	15:27:33	3785	-16068	A	-0.4962	0.9721	47.4S	53.0W	60	115	02m26s
06486	-15	0718	Nov 26	23:55:08	3625	-15845	A	-0.4900	0.9742	50.1S	177.1W	60	106	02m15s
06529	-14	0736	Dec 07	08:26:24	3467	-15622	A	-0.4866	0.9767	51.9S	58.8E	61	95	02m01s
06571	-13	0754	Dec 18	16:57:41	3313	-15399	A	-0.4824	0.9799	52.5S	64.5W	61	82	01m45s
06612	-12	0772	Dec 29	01:29:11	3160	-15176	A	-0.4778	0.9836	51.9S	172.2E	61	66	01m26s
06653	-11	0791	Jan 09	09:57:36	3011	-14953	A	-0.4700	0.9880	49.8S	48.9E	62	48	01m03s
06694	-10	0809	Jan 19	18:23:53	2866	-14730	A	-0.4598	0.9929	46.6S	75.0W	62	28	00m38s
06735	-09	0827	Jan 31	02:43:18	2723	-14507	A	-0.4435	0.9983	42.3S	161.5E	63	7	00m09s
06775	-08	0845	Feb 10	10:58:55	2584	-14284	H	-0.4232	1.0041	37.2S	37.6E	65	16	00m22s
06815	-07	0863	Feb 21	19:06:16	2449	-14061	H	-0.3954	1.0103	31.3S	85.3W	67	39	00m57s
06855	-06	0881	Mar 04	03:08:22	2318	-13838	H2	-0.3624	1.0167	25.1S	152.4E	69	61	01m35s
06895	-05	0899	Mar 15	11:01:39	2191	-13615	T	-0.3212	1.0232	18.3S	31.7E	71	83	02m14s
06935	-04	0917	Mar 25	18:49:52	2069	-13392	T	-0.2749	1.0296	11.4S	87.9W	74	104	02m53s
06976	-03	0935	Apr 06	02:30:30	1950	-13169	T	-0.2215	1.0358	4.3S	154.4E	77	123	03m32s
07017	-02	0953	Apr 16	10:05:48	1836	-12946	T	-0.1628	1.0418	2.8N	38.1E	81	142	04m07s
07058	-01	0971	Apr 27	17:35:25	1727	-12723	T	-0.0983	1.0473	9.9N	76.5W	84	158	04m38s
07098	00	0989	May 08	01:01:52	1622	-12500	T	-0.0304	1.0523	16.8N	170.3E	88	173	05m01s
07140	01	1007	May 19	08:24:59	1522	-12277	Tm	0.0409	1.0566	23.3N	58.6E	88	187	05m17s
07182	02	1025	May 29	15:46:10	1426	-12054	T	0.1145	1.0602	29.2N	51.8W	83	199	05m25s
07224	03	1043	Jun 09	23:06:47	1335	-11831	T	0.1893	1.0630	34.5N	161.0W	79	211	05m25s
07268	04	1061	Jun 20	06:28:17	1249	-11608	T	0.2641	1.0651	38.9N	90.7E	74	221	05m20s

07312	05	1079	Jul 01	13:51:08	1167	-11385	T	0.3381	1.0663	42.3N	16.9W	70	230	05m12s
07357	06	1097	Jul 11	21:17:18	1090	-11162	T	0.4099	1.0667	44.5N	124.6W	66	239	05m01s
07403	07	1115	Jul 23	04:47:53	1017	-10939	T	0.4783	1.0663	45.6N	126.8E	61	246	04m50s
07448	08	1133	Aug 02	12:24:26	948	-10716	T	0.5423	1.0652	45.8N	16.5E	57	252	04m38s
07493	09	1151	Aug 13	20:06:10	883	-10493	T	0.6024	1.0635	45.2N	95.7W	53	258	04m26s
07538	10	1169	Aug 24	03:56:00	823	-10270	T	0.6561	1.0612	44.1N	149.2E	49	263	04m15s
07584	11	1187	Sep 04	11:52:36	766	-10047	T	0.7044	1.0585	42.8N	31.5E	45	267	04m05s
07629	12	1205	Sep 14	19:58:08	713	-9824	T	0.7458	1.0556	41.4N	89.5W	42	270	03m55s
07675	13	1223	Sep 26	04:10:29	663	-9601	T	0.7816	1.0525	40.2N	147.0E	38	272	03m46s
07720	14	1241	Oct 06	12:32:01	616	-9378	T	0.8103	1.0494	39.2N	20.3E	36	274	03m38s
07764	15	1259	Oct 17	21:00:30	573	-9155	T	0.8334	1.0464	38.4N	108.8W	33	274	03m30s
07808	16	1277	Oct 28	05:36:04	533	-8932	T	0.8506	1.0438	37.9N	119.6E	31	273	03m23s
07851	17	1295	Nov 08	14:17:45	495	-8709	T	0.8630	1.0414	37.5N	14.0W	30	271	03m17s
07893	18	1313	Nov 18	23:04:31	459	-8486	T	0.8712	1.0395	37.4N	149.3W	29	268	03m13s
07935	19	1331	Nov 30	07:54:51	426	-8263	T	0.8766	1.0380	37.6N	74.2E	28	265	03m09s
07976	20	1349	Dec 10	16:46:27	395	-8040	T	0.8811	1.0371	38.2N	62.7W	28	264	03m06s
08017	21	1367	Dec 22	01:39:34	366	-7817	T	0.8842	1.0366	39.2N	159.8E	28	265	03m03s
08058	22	1386	Jan 01	10:31:27	338	-7594	T	0.8881	1.0366	40.8N	22.6E	27	269	03m01s
08098	23	1404	Jan 12	19:20:46	312	-7371	T	0.8945	1.0369	43.3N	114.3W	26	279	02m58s
08138	24	1422	Jan 23	04:05:41	287	-7148	T	0.9044	1.0374	46.6N	109.5E	25	296	02m54s
08178	25	1440	Feb 03	12:45:48	264	-6925	T	0.9183	1.0380	50.9N	26.5W	23	324	02m49s
08218	26	1458	Feb 13	21:19:39	242	-6702	T	0.9374	1.0385	56.3N	162.6W	20	375	02m41s
08258	27	1476	Feb 25	05:45:39	221	-6479	T	0.9627	1.0386	63.1N	58.7E	15	491	02m29s
08298	28	1494	Mar 07	14:04:20	202	-6256	Tn	0.9940	1.0368	71.3N	99.2W	4	-	02m06s
08339	29	1512	Mar 17	22:14:35	183	-6033	P	1.0322	0.9516	72.0N	110.2E	0		
08381	30	1530	Mar 29	06:16:37	167	-5810	P	1.0769	0.8671	71.7N	24.4W	0		
08422	31	1548	Apr 08	14:10:08	151	-5587	P	1.1282	0.7698	71.2N	156.5W	0		
08463	32	1566	Apr 19	21:56:01	138	-5364	P	1.1855	0.6610	70.5N	73.9E	0		

08504 33 1584 May 10 05:35:06 126 -5141 P 1.2478 0.5424 69.7N 53.5W 0

08545 34 1602 May 21 13:06:44 116 -4918 P 1.3157 0.4132 68.8N 178.3W 0

08587 35 1620 May 31 20:33:45 93 -4695 P 1.3868 0.2783 67.8N 58.5E 0

08631 36 1638 Jun 12 03:55:44 66 -4472 Pe 1.4614 0.1370 66.8N 62.9W 0

SAROS SERIES

103

Saros series 103 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

05678 -37 0387 Apr 04 21:52:16 6794 -19947 Pb 1.5046 0.0533 61.1N 140.0E 0

05719 -36 0405 Apr 15 05:32:35 6616 -19724 P 1.4444 0.1668 61.3N 15.4E 0

05760 -35 0423 Apr 26 13:07:50 6437 -19501 P 1.3796 0.2901 61.8N 108.0W 0

05801 -34 0441 May 06 20:39:42 6259 -19278 P 1.3114 0.4208 62.3N 129.2E 0

05842 -33 0459 May 18 04:07:08 6081 -19055 P 1.2392 0.5603 63.0N 7.4E 0

05885 -32 0477 May 28 11:33:37 5903 -18832 P 1.1660 0.7023 63.8N 114.4W 0

05928	-31	0495	Jun 08	18:58:41	5727	-18609	P	1.0914	0.8472	64.7N	124.0E	0
05972	-30	0513	Jun 19	02:25:05	5550	-18386	P	1.0176	0.9908	65.6N	1.6E	0
06016	-29	0531	Jun 30	09:51:59	5374	-18163	T	0.9440	1.0666	85.2N	106.3W	19 680 03m23s
06061	-28	0549	Jul 10	17:23:12	5199	-17940	T	0.8739	1.0688	83.1N	38.7W	29 468 03m48s
06107	-27	0567	Jul 22	00:57:59	5025	-17717	T	0.8068	1.0692	73.4N	153.4W	36 385 04m07s
06153	-26	0585	Aug 01	08:37:54	4852	-17494	T	0.7441	1.0687	64.6N	89.6E	42 336 04m22s
06198	-25	0603	Aug 12	16:23:34	4681	-17271	T	0.6860	1.0671	56.4N	29.3W	46 301 04m33s
06243	-24	0621	Aug 23	00:16:24	4512	-17048	T	0.6340	1.0648	48.6N	150.4W	50 274 04m40s
06288	-23	0639	Sep 03	08:17:01	4343	-16825	T	0.5887	1.0620	41.3N	86.5E	54 250 04m42s
06334	-22	0657	Sep 13	16:24:06	4177	-16602	T	0.5490	1.0588	34.4N	38.3W	56 230 04m42s
06380	-21	0675	Sep 25	00:40:11	4012	-16379	T	0.5170	1.0553	28.0N	165.2W	59 212 04m37s
06425	-20	0693	Oct 05	09:03:11	3849	-16156	T	0.4910	1.0517	22.2N	66.3E	60 196 04m30s
06469	-19	0711	Oct 16	17:34:15	3688	-15933	T	0.4719	1.0482	17.1N	64.0W	62 181 04m21s
06512	-18	0729	Oct 27	02:10:21	3529	-15710	T	0.4574	1.0448	12.6N	164.7E	63 167 04m11s
06554	-17	0747	Nov 07	10:53:06	3373	-15487	T	0.4487	1.0416	8.9N	32.0E	63 155 04m00s
06596	-16	0765	Nov 17	19:39:02	3220	-15264	T	0.4430	1.0389	6.0N	101.2W	64 145 03m49s
06637	-15	0783	Nov 29	04:28:09	3070	-15041	T	0.4403	1.0365	3.9N	124.9E	64 137 03m39s
06678	-14	0801	Dec 09	13:18:07	2923	-14818	T	0.4386	1.0346	2.7N	9.0W	64 130 03m29s
06719	-13	0819	Dec 20	22:08:51	2779	-14595	T	0.4377	1.0332	2.2N	143.0W	64 124 03m19s
06759	-12	0837	Dec 31	06:56:29	2639	-14372	T	0.4348	1.0323	2.5N	83.7E	64 121 03m12s
06799	-11	0856	Jan 11	15:41:03	2502	-14149	T	0.4296	1.0318	3.4N	48.7W	65 118 03m05s
06839	-10	0874	Jan 22	00:20:14	2370	-13926	T	0.4203	1.0318	4.8N	179.8W	65 117 03m01s
06879	-09	0892	Feb 02	08:54:33	2241	-13703	T	0.4071	1.0320	6.6N	50.3E	66 117 02m57s
06919	-08	0910	Feb 12	17:19:42	2117	-13480	T	0.3867	1.0325	8.6N	77.1W	67 118 02m56s
06959	-07	0928	Feb 24	01:38:26	1996	-13257	T	0.3615	1.0331	10.9N	157.3E	69 119 02m55s
07001	-06	0946	Mar 06	09:46:58	1881	-13034	T	0.3283	1.0338	13.1N	34.4E	71 120 02m56s
07042	-05	0964	Mar 16	17:48:19	1770	-12811	T	0.2895	1.0344	15.3N	86.3W	73 120 02m57s
07082	-04	0982	Mar 28	01:38:12	1663	-12588	T	0.2418	1.0347	17.2N	156.3E	76 120 02m59s

07124	-03	1000	Apr 07	09:21:38	1561	-12365	T	0.1892	1.0348	18.7N	40.8E	79	119	03m01s
07166	-02	1018	Apr 18	16:54:52	1464	-12142	T	0.1290	1.0344	19.5N	71.7W	82	117	03m03s
07208	-01	1036	Apr 29	00:21:45	1371	-11919	Tm	0.0642	1.0335	19.6N	177.6E	86	113	03m04s
07251	00	1054	May 10	07:40:25	1283	-11696	T	-0.0066	1.0319	18.8N	69.0E	90	108	03m02s
07294	01	1072	May 20	14:54:52	1199	-11473	T	-0.0801	1.0299	16.9N	38.6W	86	101	02m58s
07338	02	1090	May 31	22:03:44	1120	-11250	T	-0.1573	1.0270	14.0N	145.2W	81	93	02m48s
07384	03	1108	Jun 11	05:09:17	1045	-11027	T	-0.2364	1.0235	10.0N	108.5E	76	82	02m32s
07430	04	1126	Jun 22	12:12:40	975	-10804	T	-0.3161	1.0193	5.0N	2.1E	72	69	02m09s
07475	05	1144	Jul 02	19:15:50	908	-10581	H	-0.3949	1.0145	0.8S	105.0W	67	54	01m39s
07520	06	1162	Jul 14	02:19:38	846	-10358	H	-0.4722	1.0091	7.3S	147.1E	62	35	01m02s
07566	07	1180	Jul 24	09:25:08	788	-10135	H	-0.5471	1.0031	14.4S	38.0E	57	13	00m21s
07611	08	1198	Aug 04	16:34:46	733	-9912	A	-0.6176	0.9967	22.0S	72.8W	52	15	00m21s
07656	09	1216	Aug 14	23:48:35	682	-9689	A	-0.6832	0.9899	29.9S	174.6E	47	48	01m02s
07702	10	1234	Aug 26	07:07:19	634	-9466	A	-0.7438	0.9829	38.0S	60.0E	42	90	01m39s
07747	11	1252	Sep 05	14:32:18	590	-9243	A	-0.7982	0.9757	46.2S	57.0W	37	143	02m11s
07791	12	1270	Sep 16	22:04:26	548	-9020	A	-0.8459	0.9686	54.3S	177.2W	32	211	02m38s
07834	13	1288	Sep 27	05:43:53	509	-8797	A	-0.8863	0.9616	62.1S	58.9E	27	301	03m00s
07876	14	1306	Oct 08	13:29:27	473	-8574	A	-0.9208	0.9547	69.4S	70.7W	22	428	03m18s
07918	15	1324	Oct 18	21:22:40	439	-8351	A	-0.9481	0.9483	75.4S	149.9E	18	613	03m33s
07959	16	1342	Oct 30	05:22:14	407	-8128	A	-0.9696	0.9422	78.6S	5.8W	13	920	03m44s
08001	17	1360	Nov 09	13:27:09	377	-7905	As	-0.9858	0.9366	76.8S	166.6W	9	-	03m53s
08042	18	1378	Nov 20	21:36:04	349	-7682	A-	-0.9981	0.9635	68.1S	45.5E	0		
08083	19	1396	Dec 01	05:48:03	322	-7459	A-	-1.0074	0.9463	67.0S	88.6W	0		
08123	20	1414	Dec 12	14:01:50	297	-7236	A-	-1.0145	0.9330	65.9S	137.3E	0		
08163	21	1432	Dec 22	22:14:13	273	-7013	P	-1.0224	0.9188	64.9S	4.1E	0		
08203	22	1451	Jan 03	06:25:40	251	-6790	P	-1.0306	0.9045	63.9S	128.6W	0		
08242	23	1469	Jan 13	14:32:44	229	-6567	P	-1.0420	0.8851	63.0S	100.3E	0		
08282	24	1487	Jan 24	22:35:03	209	-6344	P	-1.0566	0.8604	62.3S	29.5W	0		

08323	25	1505	Feb 04	06:29:08	190	-6121	P	-1.0775	0.8255	61.7S	156.9W	0
08365	26	1523	Feb 15	14:16:44	173	-5898	P	-1.1030	0.7827	61.2S	77.4E	0
08406	27	1541	Feb 25	21:54:42	157	-5675	P	-1.1360	0.7272	61.0S	45.8W	0
08447	28	1559	Mar 09	05:23:01	143	-5452	P	-1.1761	0.6598	60.8S	166.6W	0
08488	29	1577	Mar 19	12:41:15	131	-5229	P	-1.2235	0.5798	60.9S	75.2E	0
08529	30	1595	Apr 09	19:50:05	121	-5006	P	-1.2777	0.4879	61.1S	40.7W	0
08569	31	1613	Apr 20	02:49:29	103	-4783	P	-1.3389	0.3839	61.5S	154.4W	0
08613	32	1631	May 01	09:39:23	77	-4560	P	-1.4070	0.2677	62.0S	94.2E	0
08658	33	1649	May 11	16:22:04	50	-4337	P	-1.4801	0.1427	62.7S	15.7W	0
08704	34	1667	May 22	22:58:00	26	-4114	Pe	-1.5574	0.0102	63.5S	124.0W	0

SAROS SERIES

104

Saros series 104 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
										°		km		
ECLIPSE														

05867 -34 0470 Apr 17 10:26:56 5973 -18920 Pb -1.4981 0.0867 71.0S 103.9E 0

05910 -33 0488 Apr 27 17:36:45 5796 -18697 P -1.4368 0.1983 70.3S 17.3W 0

05954 -32 0506 May 09 00:40:11 5620 -18474 P -1.3709 0.3179 69.5S 136.5W 0

05998 -31 0524 May 19 07:37:25 5443 -18251 P -1.3006 0.4452 68.7S 106.5E 0

06043 -30 0542 May 30 14:29:35 5268 -18028 P -1.2268 0.5781 67.7S 8.7W 0

06089 -29 0560 Jun 09 21:18:56 5093 -17805 P -1.1512 0.7134 66.7S 122.7W 0

06135 -28 0578 Jun 21 04:06:31 4920 -17582 P -1.0745 0.8494 65.7S 124.2E 0

06181 -27 0596 Jul 01 10:54:33 4749 -17359 A- -0.9988 0.9827 64.7S 11.5E 0

06226 -26 0614 Jul 12 17:42:54 4578 -17136 A -0.9237 0.9722 43.7S 84.8W 22 259 02m41s

06271 -25 0632 Jul 23 00:35:01 4409 -16913 A -0.8522 0.9696 35.9S 170.9E 31 205 03m07s

06316 -24 0650 Aug 03 07:30:19 4242 -16690 A -0.7836 0.9660 30.9S 66.0E 38 193 03m34s

06363 -23 0668 Aug 13 14:31:17 4076 -16467 A -0.7202 0.9619 28.1S 40.3W 44 194 04m00s

06408 -22 0686 Aug 24 21:37:46 3913 -16244 A -0.6619 0.9573 26.8S 147.8W 48 202 04m27s

06452 -21 0704 Sep 04 04:52:06 3751 -16021 A -0.6104 0.9526 26.8S 102.8E 52 214 04m53s

06495 -20 0722 Sep 15 12:13:45 3592 -15798 A -0.5655 0.9477 28.0S 8.2W 55 228 05m19s

06537 -19 0740 Sep 25 19:42:24 3435 -15575 A -0.5269 0.9431 29.9S 120.9W 58 243 05m45s

06579 -18 0758 Oct 07 03:19:35 3280 -15352 A -0.4959 0.9385 32.6S 124.4E 60 259 06m12s

06620 -17 0776 Oct 17 11:03:26 3129 -15129 A -0.4712 0.9343 35.6S 8.5E 62 275 06m37s

06662 -16 0794 Oct 28 18:54:46 2980 -14906 A -0.4528 0.9305 38.8S 108.9W 63 290 07m02s

06703 -15 0812 Nov 08 02:49:59 2835 -14683 A -0.4381 0.9272 41.9S 133.5E 64 303 07m26s

06744 -14 0830 Nov 19 10:51:10 2694 -14460 A -0.4289 0.9245 44.7S 15.1E 64 314 07m47s

06783 -13 0848 Nov 29 18:54:07 2556 -14237 A -0.4215 0.9224 46.7S 102.8W 65 323 08m06s

06823 -12 0866 Dec 11 02:59:11 2421 -14014 A -0.4163 0.9210 47.9S 139.5E 65 329 08m22s

06863 -11 0884 Dec 21 11:02:39 2291 -13791 A -0.4102 0.9202 47.9S 22.5E 66 332 08m35s

06903 -10 0903 Jan 01 19:04:58 2165 -13568 A -0.4032 0.9202 46.6S 94.4W 66 331 08m45s

06943 -09 0921 Jan 12 03:02:26 2043 -13345 A -0.3925 0.9207 44.0S 149.1E 67 327 08m51s

06984 -08 0939 Jan 23 10:54:43 1926 -13122 A -0.3778 0.9219 40.3S 32.8E 68 319 08m56s

07025 -07 0957 Feb 02 18:39:45 1813 -12899 A -0.3573 0.9236 35.6S 82.9W 69 308 08m57s

07066	-06	0975	Feb 14	02:17:42	1705	-12676	A	-0.3314	0.9258	30.2S	162.2E	70	296	08m56s
07108	-05	0993	Feb 24	09:45:28	1601	-12453	A	-0.2971	0.9283	24.0S	49.0E	73	281	08m51s
07150	-04	1011	Mar 07	17:04:52	1501	-12230	A	-0.2559	0.9311	17.3S	62.7W	75	266	08m44s
07192	-03	1029	Mar 18	00:14:06	1407	-12007	A	-0.2064	0.9342	10.2S	172.3W	78	250	08m32s
07234	-02	1047	Mar 29	07:16:02	1317	-11784	A	-0.1510	0.9373	2.9S	79.8E	81	236	08m15s
07278	-01	1065	Apr 08	14:06:48	1231	-11561	A	-0.0864	0.9403	4.7N	25.3W	85	222	07m54s
07322	00	1083	Apr 19	20:52:17	1150	-11338	A	-0.0173	0.9432	12.3N	128.8W	89	210	07m28s
07367	01	1101	Apr 30	03:29:14	1074	-11115	Am	0.0594	0.9459	20.0N	130.3E	86	200	06m57s
07412	02	1119	May 11	10:03:00	1002	-10892	A	0.1386	0.9484	27.4N	30.9E	82	192	06m24s
07457	03	1137	May 21	16:30:23	934	-10669	A	0.2236	0.9504	34.5N	66.0W	77	187	05m51s
07502	04	1155	Jun 01	22:57:44	870	-10446	A	0.3088	0.9520	41.1N	161.5W	72	185	05m19s
07547	05	1173	Jun 12	05:22:44	810	-10223	A	0.3966	0.9531	47.0N	105.1E	66	187	04m51s
07593	06	1191	Jun 23	11:49:25	754	-10000	A	0.4833	0.9539	52.0N	13.2E	61	193	04m28s
07639	07	1209	Jul 03	18:17:42	702	-9777	A	0.5692	0.9540	55.8N	77.1W	55	204	04m11s
07685	08	1227	Jul 15	00:51:05	653	-9554	A	0.6512	0.9537	58.3N	167.2W	49	222	03m59s
07730	09	1245	Jul 25	07:29:42	607	-9331	A	0.7295	0.9528	59.6N	102.3E	43	251	03m52s
07774	10	1263	Aug 05	14:14:43	564	-9108	A	0.8030	0.9515	60.0N	10.2E	36	295	03m49s
07817	11	1281	Aug 15	21:07:56	524	-8885	A	0.8702	0.9497	59.9N	84.2W	29	370	03m50s
07860	12	1299	Aug 27	04:09:37	487	-8662	A	0.9311	0.9474	60.0N	180.0E	21	526	03m53s
07902	13	1317	Sep 06	11:21:05	452	-8439	An	0.9843	0.9439	60.9N	87.6E	9	-	03m55s
07943	14	1335	Sep 17	18:41:54	419	-8216	P	1.0305	0.9134	60.9N	12.4W	0		
07984	15	1353	Sep 28	02:13:52	389	-7993	P	1.0684	0.8481	61.0N	134.1W	0		
08025	16	1371	Oct 09	09:55:25	360	-7770	P	1.0990	0.7952	61.3N	101.7E	0		
08067	17	1389	Oct 19	17:46:26	333	-7547	P	1.1226	0.7545	61.7N	25.0W	0		
08107	18	1407	Oct 31	01:46:22	307	-7324	P	1.1398	0.7250	62.3N	154.0W	0		
08147	19	1425	Nov 10	09:54:28	282	-7101	P	1.1506	0.7064	63.1N	74.8E	0		
08187	20	1443	Nov 21	18:08:47	259	-6878	P	1.1575	0.6946	63.9N	58.2W	0		
08227	21	1461	Dec 02	02:27:45	238	-6655	P	1.1614	0.6882	64.9N	167.3E	0		

08267	22	1479	Dec 13	10:50:14	217	-6432	P	1.1630	0.6858	65.9N	31.5E	0
08307	23	1497	Dec 23	19:14:58	198	-6209	P	1.1634	0.6856	67.0N	105.2W	0
08349	24	1516	Jan 04	03:38:41	180	-5986	P	1.1652	0.6830	68.1N	117.7E	0
08390	25	1534	Jan 14	12:01:19	163	-5763	P	1.1685	0.6778	69.1N	19.7W	0
08431	26	1552	Jan 25	20:19:44	148	-5540	P	1.1760	0.6655	70.0N	156.6W	0
08472	27	1570	Feb 05	04:34:49	135	-5317	P	1.1866	0.6475	70.9N	66.6E	0
08513	28	1588	Feb 26	12:42:31	124	-5094	P	1.2038	0.6178	71.5N	68.8W	0
08554	29	1606	Mar 08	20:45:39	112	-4871	P	1.2253	0.5800	71.9N	156.4E	0
08596	30	1624	Mar 19	04:40:36	88	-4648	P	1.2540	0.5288	72.0N	23.5E	0
08641	31	1642	Mar 30	12:29:29	61	-4425	P	1.2884	0.4668	71.9N	108.0W	0
08686	32	1660	Apr 09	20:10:11	35	-4202	P	1.3301	0.3906	71.5N	122.9E	0
08732	33	1678	Apr 21	03:45:50	16	-3979	P	1.3765	0.3049	71.0N	4.5W	0
08777	34	1696	May 01	11:15:19	8	-3756	P	1.4286	0.2078	70.2N	129.8W	0
08822	35	1714	May 13	18:39:35	10	-3533	Pe	1.4856	0.1007	69.4N	106.9E	0

SAROS SERIES

105

Saros series 105 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										

05937	-35	0499 Mar 27	19:05:53	5690	-18562	Pb	1.5545	0.0158	60.9N	177.1W	0		
05981	-34	0517 Apr 07	01:59:05	5513	-18339	P	1.4893	0.1253	61.0N	70.1E	0		
06025	-33	0535 Apr 18	08:45:54	5337	-18116	P	1.4182	0.2460	61.4N	41.1W	0		
06071	-32	0553 Apr 28	15:28:06	5162	-17893	P	1.3421	0.3764	61.8N	151.2W	0		
06117	-31	0571 May 09	22:04:44	4989	-17670	P	1.2604	0.5175	62.5N	99.9E	0		
06163	-30	0589 May 20	04:40:20	4816	-17447	P	1.1766	0.6632	63.2N	8.9W	0		
06208	-29	0607 May 31	11:14:14	4645	-17224	P	1.0906	0.8140	64.0N	117.5W	0		
06253	-28	0625 Jun 10	17:49:19	4476	-17001	A+	1.0042	0.9661	64.9N	133.3E	0		
06298	-27	0643 Jun 22	00:25:51	4308	-16778	A	0.9176	0.9648	85.5N	94.4E	23	326	02m17s
06344	-26	0661 Jul 02	07:07:22	4142	-16555	A	0.8339	0.9692	79.9N	88.8E	33	203	02m11s
06390	-25	0679 Jul 13	13:53:46	3977	-16332	A	0.7531	0.9724	70.6N	2.3W	41	151	02m07s
06434	-24	0697 Jul 23	20:46:01	3815	-16109	A	0.6761	0.9749	61.7N	103.5W	47	122	02m04s
06477	-23	0715 Aug 04	03:46:01	3654	-15886	A	0.6044	0.9767	53.3N	150.8E	53	104	02m03s
06520	-22	0733 Aug 14	10:54:42	3496	-15663	A	0.5391	0.9780	45.2N	42.0E	57	93	02m03s
06562	-21	0751 Aug 25	18:12:50	3341	-15440	A	0.4805	0.9789	37.4N	69.8W	61	85	02m04s
06604	-20	0769 Sep 05	01:40:10	3188	-15217	A	0.4288	0.9795	30.0N	175.9E	64	80	02m06s
06645	-19	0787 Sep 16	09:18:23	3039	-14994	A	0.3853	0.9799	23.1N	58.8E	67	77	02m07s
06687	-18	0805 Sep 26	17:06:36	2892	-14771	A	0.3492	0.9802	16.6N	60.7W	69	75	02m09s
06728	-17	0823 Oct 08	01:04:03	2749	-14548	A	0.3201	0.9807	10.7N	177.7E	71	72	02m09s
06768	-16	0841 Oct 18	09:11:07	2610	-14325	A	0.2980	0.9812	5.5N	53.9E	73	70	02m07s
06808	-15	0859 Oct 29	17:26:19	2474	-14102	A	0.2818	0.9821	1.0N	71.5W	74	66	02m03s
06848	-14	0877 Nov 09	01:49:24	2342	-13879	A	0.2715	0.9832	2.7S	161.5E	74	62	01m57s
06888	-13	0895 Nov 20	10:16:39	2214	-13656	A	0.2637	0.9849	5.6S	33.8E	75	55	01m45s

06928	-12	0913	Nov 30	18:50:01	2091	-13433	A	0.2602	0.9870	7.6S	95.2W	75	48	01m30s
06968	-11	0931	Dec 12	03:24:53	1972	-13210	A	0.2568	0.9896	8.7S	135.7E	75	38	01m11s
07009	-10	0949	Dec 22	12:01:30	1857	-12987	A	0.2543	0.9929	8.9S	6.2E	75	26	00m48s
07050	-09	0968	Jan 02	20:35:37	1747	-12764	A	0.2490	0.9967	8.4S	122.7W	76	12	00m21s
07091	-08	0986	Jan 13	05:08:47	1641	-12541	H	0.2422	1.0011	7.2S	108.7E	76	4	00m07s
07133	-07	1004	Jan 24	13:37:07	1540	-12318	H	0.2304	1.0060	5.5S	18.9W	77	21	00m36s
07175	-06	1022	Feb 03	22:00:47	1444	-12095	H	0.2142	1.0113	3.4S	145.2W	78	40	01m06s
07217	-05	1040	Feb 15	06:17:48	1352	-11872	H2	0.1916	1.0169	1.0S	90.0E	79	59	01m35s
07260	-04	1058	Feb 25	14:28:43	1265	-11649	T	0.1634	1.0229	1.5N	33.1W	81	79	02m05s
07304	-03	1076	Mar 07	22:31:53	1182	-11426	T	0.1281	1.0290	3.9N	154.1W	83	99	02m34s
07348	-02	1094	Mar 19	06:28:14	1104	-11203	T	0.0862	1.0350	6.1N	86.7E	85	118	03m04s
07394	-01	1112	Mar 29	14:17:31	1030	-10980	T	0.0378	1.0410	8.0N	30.5W	88	137	03m34s
07439	00	1130	Apr 09	22:01:18	960	-10757	T	-0.0160	1.0466	9.3N	146.1W	89	155	04m04s
07484	01	1148	Apr 20	05:37:53	895	-10534	Tm	-0.0765	1.0520	9.8N	100.3E	86	172	04m35s
07529	02	1166	May 01	13:11:03	833	-10311	T	-0.1406	1.0567	9.5N	12.4W	82	189	05m06s
07575	03	1184	May 11	20:39:04	776	-10088	T	-0.2094	1.0609	8.3N	123.9W	78	204	05m35s
07620	04	1202	May 23	04:06:00	722	-9865	T	-0.2801	1.0643	6.0N	124.6E	74	219	06m02s
07666	05	1220	Jun 02	11:28:52	672	-9642	T	-0.3546	1.0670	2.6N	13.7E	69	234	06m24s
07712	06	1238	Jun 13	18:53:33	625	-9419	T	-0.4280	1.0689	1.7S	98.2W	65	248	06m38s
07757	07	1256	Jun 24	02:17:22	581	-9196	T	-0.5023	1.0698	7.0S	149.4E	60	263	06m42s
07801	08	1274	Jul 05	09:44:26	540	-8973	T	-0.5742	1.0700	13.0S	35.5E	55	278	06m35s
07844	09	1292	Jul 15	17:13:08	501	-8750	T	-0.6450	1.0692	19.9S	79.6W	50	295	06m17s
07886	10	1310	Jul 27	00:47:46	466	-8527	T	-0.7111	1.0676	27.2S	163.0E	44	313	05m51s
07927	11	1328	Aug 06	08:26:35	432	-8304	T	-0.7736	1.0652	35.1S	43.6E	39	335	05m19s
07968	12	1346	Aug 17	16:11:26	401	-8081	T	-0.8312	1.0622	43.4S	78.6W	33	365	04m43s
08009	13	1364	Aug 28	00:03:01	371	-7858	T	-0.8832	1.0584	51.9S	155.6E	28	409	04m06s
08050	14	1382	Sep 08	08:02:24	343	-7635	T	-0.9290	1.0541	60.5S	24.3E	21	487	03m29s
08091	15	1400	Sep 18	16:09:43	317	-7412	T	-0.9684	1.0490	68.7S	118.1W	14	679	02m53s

08131	16	1418	Sep 30	00:24:11	292	-7189	T-	-1.0021	1.0112	71.8S	63.7E	0
08171	17	1436	Oct 10	08:47:28	268	-6966	P	-1.0286	0.9594	71.3S	76.0W	0
08211	18	1454	Oct 21	17:17:31	246	-6743	P	-1.0499	0.9177	70.7S	143.0E	0
08251	19	1472	Nov 01	01:54:27	225	-6520	P	-1.0657	0.8868	69.8S	0.9E	0
08291	20	1490	Nov 12	10:36:45	205	-6297	P	-1.0774	0.8639	68.8S	141.9W	0
08332	21	1508	Nov 22	19:24:23	187	-6074	P	-1.0850	0.8489	67.8S	74.6E	0
08374	22	1526	Dec 04	04:14:39	170	-5851	P	-1.0905	0.8382	66.7S	68.9W	0
08415	23	1544	Dec 14	13:06:28	154	-5628	P	-1.0948	0.8297	65.6S	147.6E	0
08456	24	1562	Dec 25	21:58:40	140	-5405	P	-1.0990	0.8217	64.6S	4.6E	0
08497	25	1581	Jan 05	06:49:58	128	-5182	P	-1.1041	0.8121	63.7S	137.9W	0
08538	26	1599	Jan 26	15:37:11	119	-4959	P	-1.1125	0.7965	62.9S	80.9E	0
08579	27	1617	Feb 06	00:20:23	98	-4736	P	-1.1241	0.7750	62.2S	59.0W	0
08623	28	1635	Feb 17	08:57:24	71	-4513	P	-1.1407	0.7440	61.6S	162.7E	0
08668	29	1653	Feb 27	17:28:50	44	-4290	P	-1.1619	0.7043	61.3S	26.0E	0
08714	30	1671	Mar 11	01:50:58	22	-4067	P	-1.1906	0.6504	61.0S	108.3W	0
08759	31	1689	Mar 21	10:06:42	9	-3844	P	-1.2245	0.5867	61.0S	119.0E	0
08804	32	1707	Apr 02	18:12:25	9	-3621	P	-1.2661	0.5082	61.1S	11.1W	0
08849	33	1725	Apr 13	02:11:23	10	-3398	P	-1.3132	0.4193	61.4S	139.6W	0
08895	34	1743	Apr 24	10:00:10	12	-3175	P	-1.3682	0.3152	61.8S	94.4E	0
08941	35	1761	May 04	17:43:11	15	-2952	P	-1.4274	0.2031	62.4S	30.3W	0
08987	36	1779	May 16	01:17:39	17	-2729	Pe	-1.4928	0.0796	63.0S	153.1W	0

SAROS SERIES

Saros series 106 contains 75 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

05834	-40	0456	Jan 23	08:46:30	6113	-19096	Pb	-1.5332	0.0112	69.0S	126.5W	0	
05877	-39	0474	Feb 02	17:16:01	5936	-18873	P	-1.5145	0.0438	69.9S	93.1E	0	
05920	-38	0492	Feb 14	01:38:44	5759	-18650	P	-1.4900	0.0876	70.7S	46.2W	0	
05964	-37	0510	Feb 24	09:54:50	5583	-18427	P	-1.4600	0.1419	71.3S	175.6E	0	
06008	-36	0528	Mar 06	18:02:29	5406	-18204	P	-1.4232	0.2100	71.7S	39.1E	0	
06053	-35	0546	Mar 18	02:03:46	5231	-17981	P	-1.3808	0.2891	71.9S	96.0W	0	
06099	-34	0564	Mar 28	09:57:15	5057	-17758	P	-1.3317	0.3821	71.8S	130.8E	0	
06145	-33	0582	Apr 08	17:44:36	4884	-17535	P	-1.2773	0.4861	71.4S	0.6W	0	
06191	-32	0600	Apr 19	01:25:29	4713	-17312	P	-1.2171	0.6021	70.9S	130.0W	0	
06236	-31	0618	Apr 30	09:01:45	4543	-17089	P	-1.1526	0.7270	70.2S	102.3E	0	
06281	-30	0636	May 10	16:34:17	4374	-16866	P	-1.0847	0.8593	69.3S	23.9W	0	
06327	-29	0654	May 22	00:02:55	4207	-16643	P	-1.0131	0.9990	68.4S	148.6W	0	
06373	-28	0672	Jun 01	07:30:46	4042	-16420	T	-0.9404	1.0680	48.1S	85.4E	19	663 05m06s
06418	-27	0690	Jun 12	14:57:16	3878	-16197	T	-0.8662	1.0718	36.8S	31.7W	30	469 05m52s
06462	-26	0708	Jun 22	22:25:31	3717	-15974	T	-0.7933	1.0737	28.8S	147.5W	37	393 06m18s
06504	-25	0726	Jul 04	05:53:59	3558	-15751	T	-0.7206	1.0745	22.6S	97.7E	44	347 06m31s
06546	-24	0744	Jul 14	13:26:41	3402	-15528	T	-0.6512	1.0741	18.0S	17.5W	49	314 06m30s

06588 -23 0762 Jul 25 21:02:22 3248 -15305 T -0.5842 1.0729 14.8S 132.8W 54 289 06m20s
 06629 -22 0780 Aug 05 04:43:27 3097 -15082 T -0.5220 1.0708 13.0S 110.9E 58 267 06m03s
 06670 -21 0798 Aug 16 12:29:40 2950 -14859 T -0.4642 1.0680 12.4S 6.5W 62 248 05m42s
 06711 -20 0816 Aug 26 20:23:34 2805 -14636 T -0.4132 1.0647 12.8S 125.7W 66 230 05m20s
 06752 -19 0834 Sep 07 04:24:14 2664 -14413 T -0.3680 1.0609 14.2S 113.6E 68 214 04m57s
 06792 -18 0852 Sep 17 12:32:17 2527 -14190 T -0.3291 1.0569 16.3S 9.0W 71 197 04m35s
 06832 -17 0870 Sep 28 20:47:50 2394 -13967 T -0.2968 1.0527 19.0S 133.4W 73 182 04m15s
 06872 -16 0888 Oct 09 05:11:15 2264 -13744 T -0.2715 1.0484 22.1S 100.4E 74 167 03m55s
 06912 -15 0906 Oct 20 13:41:16 2139 -13521 T -0.2518 1.0444 25.3S 27.1W 75 153 03m37s
 06952 -14 0924 Oct 30 22:17:32 2018 -13298 T -0.2378 1.0405 28.5S 155.9W 76 139 03m20s
 06993 -13 0942 Nov 11 06:58:47 1902 -13075 T -0.2281 1.0370 31.4S 74.6E 77 127 03m05s
 07034 -12 0960 Nov 21 15:44:42 1790 -12852 T -0.2228 1.0338 33.8S 55.6W 77 117 02m52s
 07074 -11 0978 Dec 03 00:31:51 1682 -12629 T -0.2191 1.0311 35.4S 174.5E 77 108 02m41s
 07116 -10 0996 Dec 13 09:21:13 1579 -12406 T -0.2176 1.0289 36.2S 44.3E 77 100 02m32s
 07158 -09 1014 Dec 24 18:08:45 1481 -12183 T -0.2153 1.0272 35.9S 85.3W 77 95 02m25s
 07200 -08 1033 Jan 04 02:54:50 1387 -11960 T -0.2122 1.0260 34.5S 145.2E 78 91 02m21s
 07243 -07 1051 Jan 15 11:35:11 1298 -11737 T -0.2049 1.0252 31.9S 16.7E 78 88 02m18s
 07287 -06 1069 Jan 25 20:11:55 1214 -11514 T -0.1952 1.0249 28.4S 111.7W 79 86 02m19s
 07331 -05 1087 Feb 06 04:40:57 1134 -11291 T -0.1801 1.0248 24.0S 121.1E 79 86 02m20s
 07377 -04 1105 Feb 16 13:02:44 1058 -11068 T -0.1592 1.0249 18.9S 5.0W 81 86 02m23s
 07422 -03 1123 Feb 27 21:15:11 987 -10845 Tm -0.1313 1.0251 13.1S 129.3W 82 86 02m27s
 07467 -02 1141 Mar 10 05:19:43 920 -10622 T -0.0971 1.0254 6.9S 107.9E 84 87 02m30s
 07512 -01 1159 Mar 21 13:14:39 857 -10399 T -0.0557 1.0254 0.3S 12.7W 87 87 02m32s
 07557 00 1177 Mar 31 21:00:18 798 -10176 T -0.0073 1.0253 6.6N 131.2W 90 86 02m33s
 07602 01 1195 Apr 12 04:37:20 743 -9953 T 0.0477 1.0248 13.6N 112.7E 87 84 02m29s
 07647 02 1213 Apr 22 12:06:14 691 -9730 T 0.1090 1.0239 20.7N 1.1W 84 82 02m23s
 07693 03 1231 May 03 19:27:05 643 -9507 T 0.1763 1.0224 27.8N 112.3W 80 78 02m11s
 07739 04 1249 May 14 02:41:14 598 -9284 T 0.2482 1.0204 34.7N 139.0E 75 72 01m56s

07783	05	1267	May 25	09:49:28	556	-9061	T	0.3243	1.0177	41.2N	32.9E	71	64	01m37s
07826	06	1285	Jun 04	16:53:58	516	-8838	H	0.4024	1.0143	47.2N	70.8W	66	54	01m15s
07869	07	1303	Jun 15	23:53:41	479	-8615	H	0.4836	1.0103	52.5N	171.4W	61	41	00m52s
07911	08	1321	Jun 26	06:52:55	445	-8392	H	0.5641	1.0056	56.7N	90.3E	55	23	00m27s
07952	09	1339	Jul 07	13:50:33	413	-8169	H	0.6451	1.0002	59.8N	5.5W	50	1	00m01s
07993	10	1357	Jul 17	20:50:34	382	-7946	A	0.7228	0.9942	61.5N	100.5W	43	29	00m26s
08034	11	1375	Jul 29	03:50:53	354	-7723	A	0.7991	0.9876	62.3N	165.3E	37	72	00m54s
08075	12	1393	Aug 08	10:56:18	327	-7500	A	0.8703	0.9804	62.3N	70.1E	29	140	01m22s
08115	13	1411	Aug 19	18:05:20	302	-7277	A	0.9376	0.9724	62.2N	23.9W	20	284	01m52s
08155	14	1429	Aug 30	01:20:30	277	-7054	A+	0.9988	0.9782	61.0N	98.8W	0		
08195	15	1447	Sep 10	08:41:40	255	-6831	P	1.0542	0.8785	60.8N	142.2E	0		
08235	16	1465	Sep 20	16:10:43	233	-6608	P	1.1020	0.7931	60.9N	21.2E	0		
08275	17	1483	Oct 01	23:47:15	213	-6385	P	1.1431	0.7202	61.1N	101.7W	0		
08316	18	1501	Oct 12	07:30:04	194	-6162	P	1.1784	0.6585	61.4N	133.9E	0		
08358	19	1519	Oct 23	15:20:34	176	-5939	P	1.2064	0.6096	61.9N	7.4E	0		
08399	20	1537	Nov 02	23:17:01	160	-5716	P	1.2286	0.5712	62.6N	120.7W	0		
08440	21	1555	Nov 14	07:19:27	145	-5493	P	1.2455	0.5423	63.3N	109.4E	0		
08481	22	1573	Nov 24	15:24:46	133	-5270	P	1.2591	0.5191	64.3N	21.4W	0		
08522	23	1591	Dec 15	23:33:56	122	-5047	P	1.2690	0.5024	65.3N	153.5W	0		
08562	24	1609	Dec 26	07:43:34	107	-4824	P	1.2776	0.4877	66.3N	73.9E	0		
08606	25	1628	Jan 06	15:52:52	82	-4601	P	1.2858	0.4739	67.4N	59.2W	0		
08651	26	1646	Jan 16	23:59:17	55	-4378	P	1.2957	0.4574	68.5N	167.8E	0		
08696	27	1664	Jan 28	08:02:31	30	-4155	P	1.3074	0.4376	69.6N	35.0E	0		
08742	28	1682	Feb 07	15:59:21	13	-3932	P	1.3238	0.4101	70.5N	96.8W	0		
08787	29	1700	Feb 18	23:49:35	8	-3709	P	1.3451	0.3744	71.2N	132.4E	0		
08832	30	1718	Mar 02	07:31:37	10	-3486	P	1.3723	0.3285	71.8N	3.2E	0		
08877	31	1736	Mar 12	15:05:55	11	-3263	P	1.4049	0.2733	72.1N	124.5W	0		
08923	32	1754	Mar 23	22:28:59	13	-3040	P	1.4463	0.2032	72.1N	110.6E	0		

08968 33 1772 Apr 03 05:43:53 16 -2817 P 1.4935 0.1229 71.9N 12.3W 0

09014 34 1790 Apr 14 12:48:15 16 -2594 Pe 1.5487 0.0287 71.4N 132.1W 0

SAROS SERIES

107

Saros series 107 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

06081 -36 0557 Feb 15 07:19:28 5125 -17846 Pb 1.5320 0.0300 61.6N 28.6E 0

06127 -35 0575 Feb 26 15:18:32 4952 -17623 P 1.5067 0.0756 61.3N 100.7W 0

06173 -34 0593 Mar 08 23:07:54 4780 -17400 P 1.4742 0.1341 61.0N 132.5E 0

06218 -33 0611 Mar 20 06:46:33 4610 -17177 P 1.4339 0.2065 61.0N 8.4E 0

06263 -32 0629 Mar 30 14:16:12 4440 -16954 P 1.3872 0.2905 61.1N 113.4W 0

06308 -31 0647 Apr 10 21:36:12 4273 -16731 P 1.3334 0.3871 61.3N 127.1E 0

06355 -30 0665 Apr 21 04:48:01 4107 -16508 P 1.2736 0.4945 61.7N 9.7E 0

06400 -29 0683 May 02 11:50:52 3943 -16285 P 1.2071 0.6135 62.2N 105.7W 0

06444	-28	0701	May 12	18:48:06	3781	-16062	P	1.1366	0.7392	62.8N	140.2E	0
06487	-27	0719	May 24	01:39:12	3621	-15839	P	1.0620	0.8714	63.6N	27.5E	0
06530	-26	0737	Jun 03	08:25:50	3463	-15616	A	0.9844	0.9737	72.3N	71.2W	9 595 01m30s
06572	-25	0755	Jun 14	15:09:50	3308	-15393	A	0.9053	0.9746	83.1N	112.7W	25 217 01m38s
06613	-24	0773	Jun 24	21:52:22	3156	-15170	A	0.8257	0.9734	79.1N	148.0W	34 171 01m53s
06654	-23	0791	Jul 06	04:35:40	3007	-14947	A	0.7473	0.9710	71.2N	127.5E	41 158 02m14s
06695	-22	0809	Jul 16	11:18:57	2862	-14724	A	0.6696	0.9679	62.9N	31.3E	48 156 02m41s
06736	-21	0827	Jul 27	18:06:50	2719	-14501	A	0.5966	0.9642	54.7N	69.8W	53 161 03m15s
06776	-20	0845	Aug 07	00:57:55	2581	-14278	A	0.5268	0.9602	46.6N	173.5W	58 170 03m54s
06816	-19	0863	Aug 18	07:55:50	2446	-14055	A	0.4631	0.9558	38.8N	80.3E	62 181 04m38s
06856	-18	0881	Aug 28	14:59:00	2315	-13832	A	0.4042	0.9512	31.1N	27.7W	66 195 05m26s
06896	-17	0899	Sep 08	22:11:30	2188	-13609	A	0.3536	0.9465	23.8N	138.2W	69 210 06m15s
06936	-16	0917	Sep 19	05:30:32	2065	-13386	A	0.3089	0.9419	16.9N	109.6E	72 225 07m06s
06977	-15	0935	Sep 30	12:58:02	1947	-13163	A	0.2716	0.9375	10.5N	4.5W	74 241 07m57s
07018	-14	0953	Oct 10	20:32:48	1833	-12940	A	0.2407	0.9333	4.6N	120.1W	76 256 08m46s
07059	-13	0971	Oct 22	04:16:15	1724	-12717	A	0.2171	0.9295	0.6S	122.4E	77 270 09m32s
07099	-12	0989	Nov 01	12:05:28	1619	-12494	A	0.1989	0.9261	5.1S	3.9E	79 283 10m14s
07141	-11	1007	Nov 12	20:00:23	1519	-12271	A	0.1855	0.9233	8.8S	115.6W	79 294 10m49s
07183	-10	1025	Nov 23	03:59:16	1424	-12048	A	0.1758	0.9211	11.5S	124.3E	80 303 11m14s
07225	-09	1043	Dec 04	12:01:48	1333	-11825	A	0.1691	0.9196	13.4S	3.7E	80 309 11m28s
07269	-08	1061	Dec 14	20:03:51	1247	-11602	A	0.1623	0.9187	14.3S	116.7W	81 312 11m29s
07313	-07	1079	Dec 26	04:06:10	1165	-11379	A	0.1559	0.9185	14.4S	123.0E	81 313 11m18s
07358	-06	1098	Jan 05	12:04:49	1088	-11156	A	0.1464	0.9189	13.8S	3.7E	82 311 10m56s
07404	-05	1116	Jan 16	20:00:57	1015	-10933	A	0.1350	0.9200	12.4S	115.2W	82 306 10m27s
07449	-04	1134	Jan 27	03:49:21	946	-10710	A	0.1170	0.9217	10.6S	127.9E	83 298 09m54s
07494	-03	1152	Feb 07	11:32:55	882	-10487	A	0.0950	0.9238	8.4S	12.0E	85 288 09m19s
07539	-02	1170	Feb 17	19:07:07	821	-10264	A	0.0651	0.9264	6.1S	101.5W	86 277 08m46s
07585	-01	1188	Feb 29	02:34:01	764	-10041	A	0.0292	0.9294	3.8S	146.9E	88 265 08m14s

07630	00	1206	Mar 11	09:50:27	711	-9818	Am	-0.0156	0.9326	1.8S	37.9E	89	252	07m47s
07676	01	1224	Mar 21	16:59:55	662	-9595	A	-0.0663	0.9359	0.0S	69.1W	86	239	07m23s
07721	02	1242	Apr 01	23:59:52	615	-9372	A	-0.1253	0.9393	1.1N	173.6W	83	227	07m04s
07765	03	1260	Apr 12	06:51:59	572	-9149	A	-0.1907	0.9426	1.5N	83.9E	79	216	06m48s
07809	04	1278	Apr 23	13:36:43	532	-8926	A	-0.2623	0.9457	1.0N	16.7W	75	207	06m37s
07852	05	1296	May 03	20:15:52	494	-8703	A	-0.3385	0.9485	0.5S	116.1W	70	200	06m27s
07894	06	1314	May 15	02:50:08	458	-8480	A	-0.4192	0.9510	3.3S	145.5E	65	196	06m19s
07936	07	1332	May 25	09:20:33	425	-8257	A	-0.5032	0.9531	7.3S	47.6E	60	197	06m10s
07977	08	1350	Jun 05	15:49:57	394	-8034	A	-0.5883	0.9547	12.4S	50.7W	54	204	05m59s
08018	09	1368	Jun 15	22:19:08	365	-7811	A	-0.6736	0.9557	18.9S	149.8W	48	218	05m43s
08059	10	1386	Jun 27	04:49:17	337	-7588	A	-0.7583	0.9561	26.6S	110.0E	40	246	05m23s
08099	11	1404	Jul 07	11:22:59	311	-7365	A	-0.8407	0.9558	35.9S	7.5E	33	299	05m00s
08139	12	1422	Jul 18	18:00:59	287	-7142	A	-0.9197	0.9545	47.2S	98.5W	23	427	04m35s
08179	13	1440	Jul 29	00:45:41	264	-6919	As	-0.9938	0.9505	66.1S	142.4E	5	-	04m02s
08219	14	1458	Aug 09	07:36:10	242	-6696	P	-1.0636	0.8590	70.8S	20.6E	0		
08259	15	1476	Aug 19	14:36:14	221	-6473	P	-1.1260	0.7506	71.4S	97.8W	0		
08299	16	1494	Aug 30	21:44:35	201	-6250	P	-1.1821	0.6529	71.8S	141.3E	0		
08341	17	1512	Sep 10	05:03:25	183	-6027	P	-1.2305	0.5688	72.0S	17.4E	0		
08383	18	1530	Sep 21	12:31:37	166	-5804	P	-1.2718	0.4970	72.0S	108.9W	0		
08424	19	1548	Oct 01	20:10:50	151	-5581	P	-1.3049	0.4394	71.7S	122.3E	0		
08465	20	1566	Oct 13	03:59:23	137	-5358	P	-1.3312	0.3939	71.1S	8.6W	0		
08506	21	1584	Nov 02	11:56:44	126	-5135	P	-1.3510	0.3595	70.4S	141.1W	0		
08547	22	1602	Nov 13	20:03:05	115	-4912	P	-1.3643	0.3363	69.5S	84.8E	0		
08589	23	1620	Nov 24	04:16:35	93	-4689	P	-1.3729	0.3212	68.5S	50.6W	0		
08633	24	1638	Dec 05	12:36:35	66	-4466	P	-1.3768	0.3143	67.5S	173.0E	0		
08678	25	1656	Dec 15	20:59:52	39	-4243	P	-1.3790	0.3102	66.4S	36.3E	0		
08724	26	1674	Dec 27	05:27:32	18	-4020	P	-1.3784	0.3108	65.4S	100.9W	0		
08769	27	1693	Jan 06	13:55:33	8	-3797	P	-1.3788	0.3097	64.4S	122.2E	0		

08814 28 1711 Jan 18 22:23:38 9 -3574 P -1.3796 0.3075 63.5S 14.4W 0

08859 29 1729 Jan 29 06:48:43 10 -3351 P -1.3838 0.2993 62.8S 149.9W 0

08905 30 1747 Feb 09 15:11:18 12 -3128 P -1.3908 0.2860 62.1S 75.5E 0

08950 31 1765 Feb 19 23:28:38 15 -2905 P -1.4028 0.2635 61.6S 57.7W 0

08996 32 1783 Mar 03 07:40:30 17 -2682 P -1.4200 0.2312 61.3S 170.5E 0

09041 33 1801 Mar 14 15:45:35 13 -2459 P -1.4434 0.1873 61.2S 40.6E 0

09086 34 1819 Mar 25 23:44:30 12 -2236 P -1.4722 0.1329 61.2S 87.9W 0

09131 35 1837 Apr 05 07:35:30 5 -2013 Pe -1.5081 0.0651 61.3S 145.6E 0

SAROS SERIES

108

Saros series 108 contains 76 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

06063 -36 0550 Jan 04 00:04:07 5194 -17934 Pb -1.5674 0.0067 67.3S 19.5E 0

06109 -35 0568 Jan 15 07:57:59 5020 -17711 P -1.5538 0.0280 68.4S 110.9W 0

06155 -34 0586 Jan 25 15:47:13 4848 -17488 P -1.5361 0.0559 69.4S 119.2E 0
 06200 -33 0604 Feb 05 23:29:00 4677 -17265 P -1.5118 0.0948 70.3S 9.5W 0
 06245 -32 0622 Feb 16 07:04:22 4507 -17042 P -1.4819 0.1434 71.0S 137.1W 0
 06290 -31 0640 Feb 27 14:30:29 4339 -16819 P -1.4439 0.2060 71.6S 97.0E 0
 06336 -30 0658 Mar 09 21:49:57 4172 -16596 P -1.3999 0.2794 71.9S 27.5W 0
 06382 -29 0676 Mar 20 05:00:44 4007 -16373 P -1.3481 0.3667 72.0S 150.1W 0
 06426 -28 0694 Mar 31 12:04:07 3844 -16150 P -1.2894 0.4669 71.8S 89.3E 0
 06470 -27 0712 Apr 10 18:59:59 3684 -15927 P -1.2234 0.5805 71.4S 29.1W 0
 06513 -26 0730 Apr 22 01:50:35 3525 -15704 P -1.1522 0.7044 70.8S 145.8W 0
 06555 -25 0748 May 02 08:36:33 3369 -15481 P -1.0762 0.8378 70.0S 99.3E 0
 06597 -24 0766 May 13 15:18:08 3216 -15258 As -0.9955 0.9562 66.1S 17.0W 3 - 03m35s
 06638 -23 0784 May 23 21:58:34 3066 -15035 A -0.9126 0.9653 44.6S 132.5W 24 309 03m30s
 06679 -22 0802 Jun 04 04:38:09 2919 -14812 A -0.8275 0.9711 33.2S 121.9E 34 185 03m12s
 06720 -21 0820 Jun 14 11:19:09 2775 -14589 A -0.7426 0.9759 24.5S 17.9E 42 128 02m49s
 06760 -20 0838 Jun 25 18:01:51 2635 -14366 A -0.6578 0.9798 17.4S 85.4W 49 95 02m24s
 06800 -19 0856 Jul 06 00:49:20 2499 -14143 A -0.5758 0.9831 12.0S 171.0E 55 73 02m00s
 06840 -18 0874 Jul 17 07:42:26 2366 -13920 A -0.4970 0.9856 8.0S 66.7E 60 58 01m39s
 06880 -17 0892 Jul 27 14:41:15 2238 -13697 A -0.4218 0.9877 5.2S 38.6W 65 48 01m22s
 06920 -16 0910 Aug 07 21:48:49 2113 -13474 A -0.3526 0.9891 3.8S 145.8W 69 41 01m10s
 06960 -15 0928 Aug 18 05:04:32 1993 -13251 A -0.2893 0.9902 3.5S 105.1E 73 36 01m01s
 07002 -14 0946 Aug 29 12:31:00 1878 -13028 A -0.2337 0.9909 4.3S 6.6W 76 33 00m55s
 07043 -13 0964 Sep 08 20:05:22 1767 -12805 A -0.1838 0.9914 5.8S 120.3W 79 31 00m51s
 07083 -12 0982 Sep 20 03:51:25 1660 -12582 A -0.1426 0.9916 8.0S 122.9E 82 30 00m49s
 07125 -11 1000 Sep 30 11:45:53 1558 -12359 A -0.1075 0.9919 10.6S 4.1E 84 29 00m47s
 07167 -10 1018 Oct 11 19:50:54 1461 -12136 A -0.0806 0.9923 13.5S 117.3W 85 27 00m45s
 07209 -09 1036 Oct 22 04:03:26 1368 -11913 A -0.0593 0.9928 16.4S 119.5E 87 25 00m42s
 07252 -08 1054 Nov 02 12:25:18 1280 -11690 A -0.0451 0.9937 19.2S 5.8W 87 22 00m38s
 07295 -07 1072 Nov 12 20:52:43 1197 -11467 A -0.0348 0.9948 21.6S 132.2W 88 18 00m31s

07339	-06	1090	Nov 24	05:25:50	1118	-11244	A	-0.0286	0.9965	23.5S	100.3E	88	12	00m21s
07385	-05	1108	Dec 04	14:02:16	1043	-11021	A	-0.0245	0.9986	24.7S	27.7W	88	5	00m08s
07431	-04	1126	Dec 15	22:41:48	973	-10798	H	-0.0228	1.0013	25.0S	156.4W	89	5	00m08s
07476	-03	1144	Dec 26	07:20:32	907	-10575	H	-0.0195	1.0046	24.3S	75.1E	89	16	00m28s
07521	-02	1163	Jan 06	15:58:40	844	-10352	H	-0.0151	1.0084	22.6S	53.4W	89	29	00m51s
07567	-01	1181	Jan 17	00:33:25	786	-10129	H	-0.0073	1.0127	19.8S	178.5E	89	44	01m17s
07612	00	1199	Jan 28	09:05:27	732	-9906	H2	0.0033	1.0174	16.2S	50.5E	90	60	01m45s
07657	01	1217	Feb 07	17:30:25	681	-9683	T	0.0204	1.0226	11.7S	76.2W	89	77	02m15s
07703	02	1235	Feb 19	01:50:49	633	-9460	Tm	0.0419	1.0280	6.6S	157.8E	88	95	02m45s
07748	03	1253	Mar 01	10:02:56	589	-9237	T	0.0710	1.0336	0.8S	33.4E	86	113	03m15s
07792	04	1271	Mar 12	18:09:34	547	-9014	T	0.1052	1.0392	5.4N	89.9W	84	132	03m44s
07835	05	1289	Mar 23	02:07:05	508	-8791	T	0.1475	1.0448	12.1N	148.9E	81	151	04m10s
07877	06	1307	Apr 03	09:59:42	472	-8568	T	0.1946	1.0501	18.9N	29.0E	79	169	04m33s
07919	07	1325	Apr 13	17:44:29	438	-8345	T	0.2487	1.0551	26.0N	88.8W	75	188	04m50s
07960	08	1343	Apr 25	01:24:16	406	-8122	T	0.3077	1.0597	33.1N	155.2E	72	206	05m02s
08002	09	1361	May 05	08:58:03	376	-7899	T	0.3722	1.0635	40.2N	41.4E	68	224	05m07s
08043	10	1379	May 16	16:28:59	348	-7676	T	0.4396	1.0668	47.0N	70.5W	64	243	05m07s
08084	11	1397	May 26	23:56:51	321	-7453	T	0.5101	1.0692	53.4N	179.9W	59	263	05m01s
08124	12	1415	Jun 07	07:22:41	296	-7230	T	0.5827	1.0708	59.2N	73.7E	54	284	04m51s
08164	13	1433	Jun 17	14:48:42	273	-7007	T	0.6558	1.0714	64.0N	29.5W	49	309	04m38s
08204	14	1451	Jun 28	22:15:28	250	-6784	T	0.7287	1.0711	67.5N	128.8W	43	339	04m23s
08243	15	1469	Jul 09	05:44:22	229	-6561	T	0.8000	1.0697	69.3N	134.7E	37	380	04m06s
08283	16	1487	Jul 20	13:15:36	209	-6338	T	0.8696	1.0673	69.3N	39.6E	29	446	03m47s
08324	17	1505	Jul 30	20:51:55	190	-6115	T	0.9352	1.0635	67.9N	55.6W	20	593	03m25s
08366	18	1523	Aug 11	04:33:16	173	-5892	Tn	0.9969	1.0558	62.7N	135.9W	2	-	02m44s
08407	19	1541	Aug 21	12:20:07	157	-5669	P	1.0541	0.9172	61.3N	102.0E	0		
08448	20	1559	Sep 01	20:13:59	143	-5446	P	1.1056	0.8172	61.1N	25.3W	0		
08489	21	1577	Sep 12	04:15:22	130	-5223	P	1.1507	0.7297	61.0N	154.4W	0		

08530	22	1595	Oct 03	12:24:36	121	-5000	P	1.1896	0.6546	61.1N	74.6E	0
08571	23	1613	Oct 13	20:40:24	102	-4777	P	1.2232	0.5902	61.3N	58.2W	0
08615	24	1631	Oct 25	05:04:15	76	-4554	P	1.2502	0.5384	61.7N	167.0E	0
08660	25	1649	Nov 04	13:35:08	49	-4331	P	1.2716	0.4977	62.2N	30.2E	0
08706	26	1667	Nov 15	22:12:06	26	-4108	P	1.2880	0.4667	62.9N	108.2W	0
08751	27	1685	Nov 26	06:54:43	11	-3885	P	1.3000	0.4442	63.7N	111.8E	0
08796	28	1703	Dec 08	15:41:30	9	-3662	P	1.3086	0.4281	64.6N	29.5W	0
08841	29	1721	Dec 19	00:31:51	10	-3439	P	1.3144	0.4172	65.7N	172.0W	0
08887	30	1739	Dec 30	09:22:03	12	-3216	P	1.3203	0.4062	66.7N	45.1E	0
08933	31	1758	Jan 09	18:13:42	14	-2993	P	1.3251	0.3972	67.8N	98.7W	0
08978	32	1776	Jan 21	03:02:27	16	-2770	P	1.3318	0.3847	68.8N	117.6E	0
09024	33	1794	Jan 31	11:48:45	15	-2547	P	1.3407	0.3680	69.8N	26.0W	0
09069	34	1812	Feb 12	20:28:40	12	-2324	P	1.3545	0.3422	70.7N	168.8W	0
09114	35	1830	Feb 23	05:04:13	7	-2101	P	1.3716	0.3100	71.3N	49.0E	0
09158	36	1848	Mar 05	13:31:35	7	-1878	P	1.3950	0.2662	71.8N	91.7W	0
09201	37	1866	Mar 16	21:51:25	5	-1655	P	1.4241	0.2114	72.0N	129.2E	0
09243	38	1884	Mar 27	06:02:11	-6	-1432	P	1.4602	0.1436	72.0N	7.7W	0
09285	39	1902	Apr 08	14:05:06	0	-1209	Pe	1.5024	0.0643	71.7N	142.4W	0

SAROS SERIES

109

Saros series 109 contains 81 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL		
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.		
												GREATEST	°	km	
															ECLIPSE

05745	-43	0416 Sep 07	13:26:34	6503	-19583	Pb	1.5077	0.0637	71.6N	112.1E	0		
05786	-42	0434 Sep 18	21:26:54	6325	-19360	P	1.4688	0.1352	71.9N	22.7W	0		
05826	-41	0452 Sep 29	05:36:43	6146	-19137	P	1.4369	0.1938	71.8N	160.1W	0		
05869	-40	0470 Oct 10	13:54:40	5968	-18914	P	1.4111	0.2412	71.5N	60.6E	0		
05912	-39	0488 Oct 20	22:21:32	5792	-18691	P	1.3921	0.2761	71.0N	80.5W	0		
05956	-38	0506 Nov 01	06:55:05	5615	-18468	P	1.3780	0.3019	70.3N	137.2E	0		
06000	-37	0524 Nov 11	15:34:10	5438	-18245	P	1.3680	0.3201	69.4N	5.9W	0		
06045	-36	0542 Nov 23	00:17:37	5263	-18022	P	1.3612	0.3325	68.4N	149.3W	0		
06091	-35	0560 Dec 03	09:04:10	5089	-17799	P	1.3564	0.3411	67.3N	67.0E	0		
06137	-34	0578 Dec 14	17:51:31	4916	-17576	P	1.3521	0.3488	66.2N	76.2W	0		
06183	-33	0596 Dec 25	02:38:01	4744	-17353	P	1.3467	0.3584	65.2N	141.2E	0		
06228	-32	0615 Jan 05	11:22:56	4574	-17130	P	1.3397	0.3712	64.2N	0.6W	0		
06273	-31	0633 Jan 15	20:04:43	4405	-16907	P	1.3295	0.3897	63.3N	141.2W	0		
06318	-30	0651 Jan 27	04:40:40	4238	-16684	P	1.3144	0.4175	62.5N	79.9E	0		
06365	-29	0669 Feb 06	13:11:22	4072	-16461	P	1.2949	0.4541	61.9N	57.5W	0		
06410	-28	0687 Feb 17	21:34:47	3908	-16238	P	1.2691	0.5026	61.4N	167.1E	0		
06454	-27	0705 Feb 28	05:52:06	3747	-16015	P	1.2380	0.5617	61.1N	33.3E	0		
06497	-26	0723 Mar 11	14:00:20	3587	-15792	P	1.1992	0.6358	60.9N	98.1W	0		
06539	-25	0741 Mar 21	22:02:37	3430	-15569	P	1.1553	0.7203	60.9N	132.0E	0		
06581	-24	0759 Apr 02	05:56:17	3276	-15346	P	1.1044	0.8190	61.0N	4.2E	0		
06622	-23	0777 Apr 12	13:44:14	3125	-15123	P	1.0485	0.9279	61.3N	122.2W	0		

06663 -22 0795 Apr 23 21:24:56 2976 -14900 Tn 0.9863 1.0587 65.2N 130.7E 9 - 02m58s

06704 -21 0813 May 04 05:01:53 2831 -14677 T 0.9209 1.0659 68.6N 43.5E 23 556 03m34s

06745 -20 0831 May 15 12:34:04 2690 -14454 T 0.8514 1.0705 69.6N 50.4W 31 439 04m00s

06784 -19 0849 May 25 20:03:24 2552 -14231 T 0.7794 1.0738 69.0N 145.3W 38 383 04m22s

06824 -18 0867 Jun 06 03:30:59 2418 -14008 T 0.7058 1.0760 66.6N 117.5E 45 349 04m43s

06864 -17 0885 Jun 16 10:58:05 2288 -13785 T 0.6320 1.0772 62.6N 16.4E 51 323 05m02s

06904 -16 0903 Jun 27 18:26:02 2162 -13562 T 0.5585 1.0773 57.4N 88.8W 56 302 05m18s

06944 -15 0921 Jul 08 01:55:03 2040 -13339 T 0.4862 1.0765 51.4N 162.7E 61 284 05m32s

06985 -14 0939 Jul 19 09:27:56 1923 -13116 T 0.4172 1.0748 44.9N 51.1E 65 267 05m42s

07026 -13 0957 Jul 29 17:04:35 1810 -12893 T 0.3518 1.0723 38.0N 63.0W 69 251 05m46s

07067 -12 0975 Aug 10 00:46:07 1702 -12670 T 0.2907 1.0692 31.0N 179.2W 73 236 05m45s

07109 -11 0993 Aug 20 08:33:40 1598 -12447 T 0.2350 1.0654 24.0N 62.4E 76 220 05m37s

07151 -10 1011 Aug 31 16:27:51 1499 -12224 T 0.1851 1.0612 17.1N 58.0W 79 204 05m25s

07193 -09 1029 Sep 11 00:29:28 1404 -12001 T 0.1422 1.0567 10.4N 179.6E 82 189 05m07s

07235 -08 1047 Sep 22 08:36:53 1314 -11778 T 0.1046 1.0519 4.0N 55.8E 84 173 04m47s

07279 -07 1065 Oct 02 16:52:55 1229 -11555 T 0.0747 1.0471 2.0S 69.9W 86 157 04m24s

07323 -06 1083 Oct 14 01:15:15 1148 -11332 T 0.0503 1.0424 7.4S 163.1E 87 142 04m00s

07368 -05 1101 Oct 24 09:45:16 1072 -11109 T 0.0328 1.0378 12.3S 34.7E 88 127 03m37s

07413 -04 1119 Nov 04 18:19:38 1000 -10886 T 0.0194 1.0336 16.4S 94.2W 89 113 03m14s

07458 -03 1137 Nov 15 03:00:21 932 -10663 Tm 0.0116 1.0297 19.6S 135.7E 89 101 02m53s

07503 -02 1155 Nov 26 11:43:38 869 -10440 T 0.0063 1.0262 21.9S 5.5E 90 89 02m34s

07548 -01 1173 Dec 06 20:29:30 809 -10217 T 0.0034 1.0234 23.2S 125.0W 90 80 02m17s

07594 00 1191 Dec 18 05:15:22 753 -9994 T 0.0008 1.0209 23.6S 104.7E 90 71 02m02s

07640 01 1209 Dec 28 14:00:54 701 -9771 T -0.0018 1.0190 23.0S 25.5W 90 65 01m50s

07686 02 1228 Jan 08 22:42:54 652 -9548 H3 -0.0068 1.0176 21.6S 155.1W 89 60 01m40s

07731 03 1246 Jan 19 07:20:33 606 -9325 H -0.0150 1.0166 19.6S 76.3E 89 57 01m34s

07775 04 1264 Jan 30 15:52:26 563 -9102 H -0.0276 1.0159 17.1S 51.2W 88 55 01m29s

07818 05 1282 Feb 10 00:17:59 523 -8879 H -0.0451 1.0156 14.3S 177.3W 87 54 01m26s

07861	06	1300	Feb 21	08:34:00	486	-8656	H	-0.0698	1.0154	11.5S	58.8E	86	53	01m24s
07903	07	1318	Mar 03	16:42:11	451	-8433	H	-0.1003	1.0153	8.8S	63.2W	84	53	01m24s
07944	08	1336	Mar 14	00:40:15	419	-8210	H	-0.1386	1.0152	6.4S	177.4E	82	52	01m23s
07985	09	1354	Mar 25	08:30:21	388	-7987	H	-0.1829	1.0149	4.4S	60.0E	79	52	01m23s
08026	10	1372	Apr 04	16:09:02	359	-7764	H	-0.2359	1.0143	3.1S	54.4W	76	50	01m22s
08068	11	1390	Apr 15	23:40:36	332	-7541	H	-0.2940	1.0133	2.7S	167.0W	73	48	01m19s
08108	12	1408	Apr 26	07:02:10	306	-7318	H	-0.3595	1.0119	3.3S	82.8E	69	44	01m13s
08148	13	1426	May 07	14:17:32	282	-7095	H	-0.4294	1.0100	5.0S	26.0W	65	38	01m03s
08188	14	1444	May 17	21:24:41	259	-6872	H	-0.5052	1.0074	8.1S	133.0W	60	29	00m48s
08228	15	1462	May 29	04:28:02	237	-6649	H	-0.5833	1.0042	12.4S	120.4E	54	18	00m28s
08268	16	1480	Jun 08	11:26:08	217	-6426	H	-0.6644	1.0002	18.0S	14.4E	48	1	00m02s
08308	17	1498	Jun 19	18:21:38	197	-6203	A	-0.7466	0.9956	25.1S	91.8W	42	23	00m29s
08350	18	1516	Jun 30	01:15:15	179	-5980	A	-0.8291	0.9899	33.8S	161.3E	34	64	01m03s
08391	19	1534	Jul 11	08:08:46	163	-5757	A	-0.9104	0.9833	44.9S	52.5E	24	144	01m35s
08432	20	1552	Jul 21	15:03:48	148	-5534	As	-0.9893	0.9742	62.9S	64.6W	7	-	02m05s
08473	21	1570	Aug 01	22:00:22	135	-5311	P	-1.0655	0.8623	70.4S	171.9E	0		
08514	22	1588	Aug 22	05:01:47	124	-5088	P	-1.1364	0.7355	71.1S	53.5E	0		
08555	23	1606	Sep 02	12:07:23	111	-4865	P	-1.2026	0.6182	71.7S	66.5W	0		
08598	24	1624	Sep 12	19:19:26	87	-4642	P	-1.2625	0.5133	72.0S	171.5E	0		
08643	25	1642	Sep 24	02:37:37	60	-4419	P	-1.3163	0.4199	72.1S	47.6E	0		
08688	26	1660	Oct 04	10:03:43	34	-4196	P	-1.3629	0.3401	72.0S	78.2W	0		
08734	27	1678	Oct 15	17:36:58	15	-3973	P	-1.4027	0.2730	71.6S	154.5E	0		
08779	28	1696	Oct 26	01:17:07	8	-3750	P	-1.4361	0.2172	70.9S	25.9E	0		
08824	29	1714	Nov 07	09:04:34	10	-3527	P	-1.4630	0.1730	70.1S	103.9W	0		
08869	30	1732	Nov 17	16:58:51	11	-3304	P	-1.4841	0.1389	69.2S	125.3E	0		
08915	31	1750	Nov 29	00:58:14	13	-3081	P	-1.5004	0.1129	68.2S	6.2W	0		
08960	32	1768	Dec 09	09:01:39	16	-2858	P	-1.5129	0.0932	67.1S	138.1W	0		
09006	33	1786	Dec 20	17:07:24	17	-2635	P	-1.5232	0.0772	66.0S	89.9E	0		

09051 34 1805 Jan 01 01:14:57 12 -2412 P -1.5315 0.0642 65.0S 42.1W 0

09096 35 1823 Jan 12 09:20:12 11 -2189 P -1.5413 0.0484 64.0S 173.0W 0

09140 36 1841 Jan 22 17:24:15 5 -1966 P -1.5516 0.0316 63.1S 56.6E 0

09183 37 1859 Feb 03 01:22:42 7 -1743 Pe -1.5659 0.0077 62.4S 72.1W 0

SAROS SERIES

110

Saros series 110 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

05852 -37 0463 Aug 30 12:11:41 6039 -19002 Pb -1.4959 0.0774 61.4S 51.2W 0

05895 -36 0481 Sep 09 20:08:13 5861 -18779 P -1.4589 0.1488 61.1S 179.9W 0

05939 -35 0499 Sep 21 04:11:45 5685 -18556 P -1.4281 0.2079 61.0S 49.8E 0

05983 -34 0517 Oct 01 12:22:50 5508 -18333 P -1.4042 0.2535 61.0S 82.5W 0

06027 -33 0535 Oct 12 20:41:01 5332 -18110 P -1.3865 0.2873 61.3S 143.5E 0

06073 -32 0553 Oct 23 05:04:28 5157 -17887 P -1.3737 0.3117 61.6S 8.1E 0

06119	-31	0571	Nov 03	13:34:02	4984	-17664	P	-1.3665	0.3256	62.2S	128.9W	0
06165	-30	0589	Nov 13	22:07:32	4812	-17441	P	-1.3634	0.3320	62.9S	92.9E	0
06210	-29	0607	Nov 25	06:44:16	4641	-17218	P	-1.3633	0.3327	63.7S	46.4W	0
06255	-28	0625	Dec 05	15:21:37	4471	-16995	P	-1.3647	0.3308	64.6S	173.9E	0
06300	-27	0643	Dec 16	23:59:22	4303	-16772	P	-1.3669	0.3272	65.6S	33.8E	0
06346	-26	0661	Dec 27	08:34:50	4137	-16549	P	-1.3681	0.3254	66.7S	106.2W	0
06392	-25	0680	Jan 07	17:06:18	3973	-16326	P	-1.3669	0.3276	67.7S	114.3E	0
06436	-24	0698	Jan 18	01:32:29	3810	-16103	P	-1.3624	0.3359	68.7S	24.4W	0
06479	-23	0716	Jan 29	09:52:15	3650	-15880	P	-1.3537	0.3514	69.7S	162.2W	0
06522	-22	0734	Feb 08	18:03:13	3492	-15657	P	-1.3386	0.3781	70.5S	61.7E	0
06564	-21	0752	Feb 20	02:05:24	3337	-15434	P	-1.3174	0.4159	71.2S	72.7W	0
06605	-20	0770	Mar 02	09:57:41	3184	-15211	P	-1.2892	0.4661	71.7S	154.8E	0
06646	-19	0788	Mar 12	17:41:00	3035	-14988	P	-1.2547	0.5273	71.9S	24.3E	0
06688	-18	0806	Mar 24	01:12:11	2888	-14765	P	-1.2111	0.6048	71.9S	103.2W	0
06729	-17	0824	Apr 03	08:35:03	2745	-14542	P	-1.1616	0.6928	71.6S	131.6E	0
06769	-16	0842	Apr 14	15:47:20	2606	-14319	P	-1.1039	0.7950	71.1S	9.3E	0
06809	-15	0860	Apr 24	22:52:40	2470	-14096	P	-1.0414	0.9057	70.5S	110.7W	0
06849	-14	0878	May 06	05:48:12	2339	-13873	A	-0.9715	0.9711	57.7S	120.3E	13 455 02m28s
06889	-13	0896	May 16	12:39:28	2211	-13650	A	-0.8986	0.9727	43.7S	6.4E	26 224 02m43s
06929	-12	0914	May 27	19:24:02	2088	-13427	A	-0.8205	0.9728	33.2S	100.7W	35 171 03m00s
06969	-11	0932	Jun 07	02:05:46	1969	-13204	A	-0.7406	0.9719	24.7S	154.8E	42 150 03m19s
07010	-10	0950	Jun 18	08:43:41	1854	-12981	A	-0.6580	0.9703	17.5S	52.5E	49 142 03m40s
07051	-09	0968	Jun 28	15:22:10	1744	-12758	A	-0.5764	0.9680	11.7S	49.0W	55 140 04m01s
07092	-08	0986	Jul 09	22:00:35	1638	-12535	A	-0.4952	0.9651	7.0S	149.8W	60 144 04m22s
07134	-07	1004	Jul 20	04:41:00	1537	-12312	A	-0.4161	0.9618	3.7S	109.6E	65 151 04m42s
07176	-06	1022	Jul 31	11:25:00	1441	-12089	A	-0.3406	0.9580	1.5S	8.4E	70 161 05m03s
07218	-05	1040	Aug 10	18:14:08	1349	-11866	A	-0.2696	0.9539	0.4S	93.7W	74 174 05m24s
07261	-04	1058	Aug 22	01:09:14	1262	-11643	A	-0.2043	0.9496	0.4S	162.7E	78 188 05m47s

07305	-03	1076	Sep 01	08:10:51	1180	-11420	A	-0.1448	0.9452	1.2S	57.6E	82	204	06m13s
07349	-02	1094	Sep 12	15:20:29	1102	-11197	A	-0.0922	0.9408	2.8S	49.7W	85	220	06m41s
07395	-01	1112	Sep 22	22:38:26	1028	-10974	Am	-0.0469	0.9365	4.8S	159.1W	87	237	07m13s
07440	00	1130	Oct 04	06:03:42	958	-10751	A	-0.0080	0.9324	7.2S	89.7E	89	253	07m48s
07485	01	1148	Oct 14	13:38:06	893	-10528	A	0.0231	0.9286	9.7S	23.9W	89	268	08m26s
07530	02	1166	Oct 25	21:19:40	832	-10305	A	0.0477	0.9253	12.2S	139.2W	87	282	09m05s
07576	03	1184	Nov 05	05:09:12	774	-10082	A	0.0659	0.9224	14.4S	103.7E	86	294	09m45s
07621	04	1202	Nov 16	13:02:26	721	-9859	A	0.0809	0.9201	16.2S	14.2W	85	303	10m23s
07667	05	1220	Nov 26	21:01:31	670	-9636	A	0.0907	0.9185	17.4S	133.4W	85	311	10m57s
07713	06	1238	Dec 08	05:02:16	624	-9413	A	0.0988	0.9175	17.9S	107.1E	84	315	11m23s
07758	07	1256	Dec 18	13:04:38	580	-9190	A	0.1055	0.9172	17.5S	12.7W	84	317	11m39s
07802	08	1274	Dec 29	21:04:54	539	-8967	A	0.1138	0.9175	16.2S	132.2W	84	316	11m44s
07845	09	1293	Jan 09	05:03:32	500	-8744	A	0.1233	0.9185	13.9S	108.4E	83	312	11m36s
07887	10	1311	Jan 20	12:57:37	465	-8521	A	0.1365	0.9200	10.6S	10.1W	82	306	11m18s
07928	11	1329	Jan 30	20:45:47	431	-8298	A	0.1543	0.9222	6.5S	127.7W	81	297	10m51s
07969	12	1347	Feb 11	04:27:03	400	-8075	A	0.1778	0.9248	1.5S	116.0E	80	287	10m17s
08010	13	1365	Feb 21	12:00:58	370	-7852	A	0.2074	0.9279	4.1N	1.2E	78	276	09m38s
08051	14	1383	Mar 04	19:25:59	342	-7629	A	0.2444	0.9312	10.4N	111.8W	76	265	08m56s
08092	15	1401	Mar 15	02:42:43	316	-7406	A	0.2885	0.9347	17.2N	137.1E	73	253	08m12s
08132	16	1419	Mar 26	09:50:57	291	-7183	A	0.3399	0.9383	24.5N	28.0E	70	243	07m25s
08172	17	1437	Apr 05	16:52:06	268	-6960	A	0.3974	0.9419	32.1N	79.3W	66	233	06m39s
08212	18	1455	Apr 16	23:44:01	245	-6737	A	0.4628	0.9454	40.0N	176.1E	62	227	05m53s
08252	19	1473	Apr 27	06:30:57	224	-6514	A	0.5328	0.9486	48.1N	73.3E	58	223	05m10s
08292	20	1491	May 08	13:11:33	205	-6291	A	0.6085	0.9514	56.5N	26.9W	52	225	04m30s
08333	21	1509	May 18	19:49:36	186	-6068	A	0.6865	0.9539	64.9N	124.3W	46	233	03m56s
08375	22	1527	May 30	02:23:01	169	-5845	A	0.7688	0.9556	73.4N	144.6E	39	255	03m28s
08416	23	1545	Jun 09	08:57:28	154	-5622	A	0.8506	0.9567	81.2N	72.0E	31	303	03m06s
08457	24	1563	Jun 20	15:30:55	140	-5399	A	0.9338	0.9564	81.3N	55.3E	20	454	02m49s

08498	25	1581	Jun 30	22:06:53	128	-5176	P	1.0152	0.9454	64.2N	2.2W	0
08539	26	1599	Jul 22	04:45:15	119	-4953	P	1.0949	0.8068	63.4N	111.2W	0
08581	27	1617	Aug 01	11:29:44	97	-4730	P	1.1702	0.6756	62.7N	138.3E	0
08625	28	1635	Aug 12	18:20:10	71	-4507	P	1.2412	0.5514	62.1N	26.6E	0
08670	29	1653	Aug 23	01:17:26	44	-4284	P	1.3072	0.4356	61.6N	86.7W	0
08716	30	1671	Sep 03	08:23:57	22	-4061	P	1.3664	0.3318	61.3N	157.8E	0
08761	31	1689	Sep 13	15:39:22	9	-3838	P	1.4191	0.2394	61.1N	40.2E	0
08806	32	1707	Sep 25	23:05:05	9	-3615	P	1.4641	0.1603	61.1N	80.0W	0
08851	33	1725	Oct 06	06:39:42	10	-3392	P	1.5029	0.0923	61.2N	157.7E	0
08897	34	1743	Oct 17	14:25:42	12	-3169	Pe	1.5334	0.0387	61.5N	32.5E	0

SAROS SERIES

111

Saros series 111 contains 79 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
ECLIPSE													

06010	-34	0528 Aug 30	20:01:34	5401	-18198	Pb	1.5569	0.0164	71.4N	17.5E	0
06055	-33	0546 Sep 11	03:08:22	5226	-17975	P	1.5085	0.0994	71.8N	103.8W	0
06101	-32	0564 Sep 21	10:24:56	5052	-17752	P	1.4676	0.1693	72.0N	132.2E	0
06147	-31	0582 Oct 02	17:50:20	4879	-17529	P	1.4333	0.2276	71.8N	6.0E	0
06192	-30	0600 Oct 13	01:25:21	4708	-17306	P	1.4062	0.2734	71.5N	122.5W	0
06237	-29	0618 Oct 24	09:08:27	4538	-17083	P	1.3853	0.3086	70.8N	107.5E	0
06282	-28	0636 Nov 03	16:57:50	4370	-16860	P	1.3690	0.3360	70.0N	23.5W	0
06328	-27	0654 Nov 15	00:54:10	4203	-16637	P	1.3578	0.3547	69.1N	155.6W	0
06374	-26	0672 Nov 25	08:54:26	4037	-16414	P	1.3490	0.3694	68.0N	72.0E	0
06419	-25	0690 Dec 06	16:57:53	3874	-16191	P	1.3426	0.3801	66.9N	60.6W	0
06463	-24	0708 Dec 17	01:00:57	3713	-15968	P	1.3352	0.3923	65.8N	167.5E	0
06505	-23	0726 Dec 28	09:04:22	3554	-15745	P	1.3278	0.4046	64.8N	35.9E	0
06547	-22	0745 Jan 07	17:04:29	3398	-15522	P	1.3168	0.4226	63.8N	94.4W	0
06589	-21	0763 Jan 19	01:00:28	3244	-15299	P	1.3022	0.4470	63.0N	136.6E	0
06630	-20	0781 Jan 29	08:50:22	3093	-15076	P	1.2820	0.4807	62.2N	9.5E	0
06671	-19	0799 Feb 09	16:34:07	2946	-14853	P	1.2562	0.5241	61.6N	116.0W	0
06712	-18	0817 Feb 20	00:10:20	2801	-14630	P	1.2237	0.5794	61.2N	120.6E	0
06753	-17	0835 Mar 03	07:38:42	2661	-14407	P	1.1839	0.6476	60.9N	0.7W	0
06793	-16	0853 Mar 13	14:59:08	2523	-14184	P	1.1368	0.7290	60.8N	120.0W	0
06833	-15	0871 Mar 24	22:12:34	2390	-13961	P	1.0832	0.8227	60.8N	122.4E	0
06873	-14	0889 Apr 04	05:17:45	2261	-13738	P	1.0218	0.9306	61.0N	6.9E	0
06913	-13	0907 Apr 15	12:17:35	2136	-13515	A	0.9549	0.9550	63.9N	70.9W	17 557 03m04s
06953	-12	0925 Apr 25	19:11:24	2015	-13292	A	0.8822	0.9628	64.2N	156.5W	28 285 02m40s
06994	-11	0943 May 07	02:02:38	1899	-13069	A	0.8059	0.9693	64.0N	114.2E	36 185 02m17s
07035	-10	0961 May 17	08:48:53	1787	-12846	A	0.7245	0.9753	62.8N	25.1E	43 128 01m54s
07075	-09	0979 May 28	15:35:35	1679	-12623	A	0.6424	0.9806	60.5N	65.9W	50 90 01m34s
07117	-08	0997 Jun 07	22:20:33	1577	-12400	A	0.5580	0.9853	56.8N	158.6W	56 63 01m15s
07159	-07	1015 Jun 19	05:08:27	1478	-12177	A	0.4748	0.9894	52.0N	105.3E	61 43 00m57s

07201	-06	1033	Jun 29	11:57:10	1385	-11954	A	0.3912	0.9928	46.2N	6.8E	67	27	00m40s
07244	-05	1051	Jul 10	18:52:23	1296	-11731	A	0.3120	0.9957	39.9N	95.1W	72	16	00m26s
07288	-04	1069	Jul 21	01:51:43	1212	-11508	A	0.2355	0.9979	33.2N	160.5E	76	8	00m13s
07332	-03	1087	Aug 01	08:58:39	1132	-11285	A	0.1644	0.9996	26.2N	53.1E	80	1	00m02s
07378	-02	1105	Aug 11	16:12:35	1056	-11062	H	0.0982	1.0008	19.0N	56.6W	84	3	00m05s
07423	-01	1123	Aug 22	23:36:13	985	-10839	H	0.0391	1.0016	11.9N	169.3W	88	6	00m10s
07468	00	1141	Sep 02	07:08:35	918	-10616	H	-0.0136	1.0021	4.9N	75.7E	89	7	00m13s
07513	01	1159	Sep 13	14:50:28	856	-10393	H	-0.0591	1.0023	1.9S	41.8W	87	8	00m15s
07558	02	1177	Sep 23	22:42:22	797	-10170	H	-0.0971	1.0025	8.3S	161.5W	84	9	00m16s
07603	03	1195	Oct 05	06:44:13	742	-9947	H	-0.1277	1.0026	14.3S	76.6E	83	9	00m16s
07648	04	1213	Oct 15	14:54:53	690	-9724	H	-0.1519	1.0029	19.8S	47.0W	81	10	00m18s
07694	05	1231	Oct 26	23:14:27	642	-9501	Hm	-0.1694	1.0033	24.6S	172.2W	80	12	00m20s
07740	06	1249	Nov 06	07:41:11	597	-9278	H	-0.1817	1.0041	28.7S	61.6E	79	14	00m24s
07784	07	1267	Nov 17	16:14:34	555	-9055	H	-0.1891	1.0052	31.8S	65.6W	79	18	00m30s
07827	08	1285	Nov 28	00:51:28	515	-8832	H	-0.1943	1.0068	33.9S	167.0E	79	24	00m39s
07870	09	1303	Dec 09	09:32:53	479	-8609	H	-0.1964	1.0089	34.9S	39.0E	78	31	00m50s
07912	10	1321	Dec 19	18:15:02	444	-8386	H	-0.1987	1.0115	34.9S	89.2W	78	40	01m04s
07953	11	1339	Dec 31	02:57:36	412	-8163	H	-0.2011	1.0147	33.9S	142.5E	78	52	01m20s
07994	12	1358	Jan 10	11:37:17	382	-7940	T	-0.2065	1.0183	32.0S	14.4E	78	64	01m38s
08035	13	1376	Jan 21	20:15:01	353	-7717	T	-0.2141	1.0225	29.5S	113.5W	77	78	01m58s
08076	14	1394	Feb 01	04:47:49	326	-7494	T	-0.2268	1.0270	26.6S	119.2E	77	94	02m19s
08116	15	1412	Feb 12	13:15:02	301	-7271	T	-0.2446	1.0319	23.5S	7.0W	76	111	02m42s
08156	16	1430	Feb 22	21:35:50	277	-7048	T	-0.2685	1.0369	20.5S	131.9W	74	128	03m05s
08196	17	1448	Mar 05	05:49:57	254	-6825	T	-0.2984	1.0421	17.7S	104.7E	73	147	03m30s
08236	18	1466	Mar 16	13:57:13	233	-6602	T	-0.3348	1.0471	15.3S	17.1W	70	165	03m56s
08276	19	1484	Mar 26	21:56:47	212	-6379	T	-0.3782	1.0521	13.5S	137.0W	68	185	04m22s
08317	20	1502	Apr 07	05:49:59	193	-6156	T	-0.4276	1.0567	12.6S	104.7E	65	205	04m49s
08359	21	1520	Apr 17	13:36:46	176	-5933	T	-0.4825	1.0609	12.6S	12.2W	61	226	05m15s

08400	22	1538	Apr 28	21:17:31	159	-5710	T	-0.5432	1.0645	13.7S	127.7W	57	249	05m38s
08441	23	1556	May 09	04:53:36	145	-5487	T	-0.6079	1.0673	16.0S	117.8E	52	274	05m58s
08482	24	1574	May 20	12:25:42	132	-5264	T	-0.6763	1.0694	19.7S	3.7E	47	305	06m09s
08523	25	1592	Jun 09	19:55:49	122	-5041	T	-0.7465	1.0705	24.7S	110.3W	42	344	06m11s
08563	26	1610	Jun 21	03:23:00	107	-4818	T	-0.8193	1.0705	31.5S	135.5E	35	400	05m59s
08607	27	1628	Jul 01	10:50:39	81	-4595	T	-0.8917	1.0692	40.3S	20.0E	27	501	05m32s
08652	28	1646	Jul 12	18:18:19	54	-4372	T	-0.9641	1.0658	53.2S	98.0W	15	834	04m44s
08697	29	1664	Jul 23	01:48:46	29	-4149	P	-1.0343	0.9581	68.8S	134.7E	0		
08743	30	1682	Aug 03	09:21:11	13	-3926	P	-1.1028	0.8246	69.7S	9.5E	0		
08788	31	1700	Aug 14	16:59:06	8	-3703	P	-1.1668	0.7000	70.6S	117.5W	0		
08833	32	1718	Aug 26	00:41:45	10	-3480	P	-1.2267	0.5837	71.2S	113.7E	0		
08879	33	1736	Sep 05	08:30:26	11	-3257	P	-1.2817	0.4775	71.7S	17.1W	0		
08925	34	1754	Sep 16	16:25:41	14	-3034	P	-1.3314	0.3821	71.9S	149.9W	0		
08970	35	1772	Sep 27	00:28:19	16	-2811	P	-1.3751	0.2988	72.0S	75.4E	0		
09016	36	1790	Oct 08	08:38:52	16	-2588	P	-1.4122	0.2287	71.7S	61.3W	0		
09061	37	1808	Oct 19	16:55:30	12	-2365	P	-1.4443	0.1687	71.3S	160.8E	0		
09106	38	1826	Oct 31	01:20:38	9	-2142	P	-1.4696	0.1222	70.6S	21.2E	0		
09150	39	1844	Nov 10	09:51:45	6	-1919	P	-1.4902	0.0847	69.8S	119.3W	0		
09193	40	1862	Nov 21	18:29:48	7	-1696	P	-1.5052	0.0580	68.8S	99.1E	0		
09235	41	1880	Dec 02	03:11:33	-5	-1473	P	-1.5172	0.0369	67.8S	42.9W	0		
09277	42	1898	Dec 13	11:58:13	-4	-1250	P	-1.5253	0.0231	66.8S	174.5E	0		
09319	43	1916	Dec 24	20:46:22	19	-1027	P	-1.5321	0.0114	65.7S	32.1E	0		
09362	44	1935	Jan 05	05:35:46	24	-804	Pe	-1.5381	0.0013	64.7S	110.2W	0		

SAROS SERIES

112

Saros series 112 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL	
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.	
											GREATEST	°	km	
														ECLIPSE

06036	-36	0539 Jul 31	01:59:02	5295	-18063	Pb	-1.4924	0.0889	62.6S	123.1E	0		
06083	-35	0557 Aug 10	09:28:40	5121	-17840	P	-1.4288	0.2066	62.0S	0.9E	0		
06129	-34	0575 Aug 21	17:06:51	4947	-17617	P	-1.3710	0.3137	61.5S	123.3W	0		
06175	-33	0593 Sep 01	00:53:15	4776	-17394	P	-1.3190	0.4100	61.1S	110.6E	0		
06220	-32	0611 Sep 12	08:49:34	4605	-17171	P	-1.2744	0.4929	60.9S	17.9W	0		
06265	-31	0629 Sep 22	16:55:16	4436	-16948	P	-1.2369	0.5622	60.8S	148.7W	0		
06310	-30	0647 Oct 04	01:10:30	4268	-16725	P	-1.2065	0.6186	60.9S	78.1E	0		
06357	-29	0665 Oct 14	09:33:22	4102	-16502	P	-1.1819	0.6641	61.2S	57.0W	0		
06402	-28	0683 Oct 25	18:04:33	3938	-16279	P	-1.1635	0.6981	61.7S	165.7E	0		
06446	-27	0701 Nov 05	02:42:23	3776	-16056	P	-1.1502	0.7226	62.3S	26.6E	0		
06489	-26	0719 Nov 16	11:25:02	3616	-15833	P	-1.1408	0.7402	63.0S	113.8W	0		
06531	-25	0737 Nov 26	20:12:02	3459	-15610	P	-1.1347	0.7516	63.9S	104.4E	0		
06573	-24	0755 Dec 08	05:00:55	3304	-15387	P	-1.1301	0.7604	64.8S	38.2W	0		
06614	-23	0773 Dec 18	13:51:01	3152	-15164	P	-1.1264	0.7678	65.9S	178.5E	0		

06655 -22 0791 Dec 29 22:38:40 3004 -14941 P -1.1206 0.7792 67.0S 35.4E 0
 06696 -21 0810 Jan 09 07:25:19 2858 -14718 P -1.1139 0.7924 68.0S 108.0W 0
 06737 -20 0828 Jan 20 16:07:03 2716 -14495 P -1.1035 0.8129 69.1S 109.3E 0
 06777 -19 0846 Jan 31 00:44:07 2577 -14272 P -1.0889 0.8414 70.0S 32.9W 0
 06817 -18 0864 Feb 11 09:14:03 2442 -14049 P -1.0684 0.8814 70.8S 173.9W 0
 06857 -17 0882 Feb 21 17:38:16 2311 -13826 P -1.0431 0.9309 71.4S 46.0E 0
 06897 -16 0900 Mar 04 01:54:43 2185 -13603 P -1.0112 0.9933 71.8S 92.6W 0
 06937 -15 0918 Mar 15 10:03:27 2062 -13380 T -0.9730 1.0489 68.4S 94.4E 13 737 02m53s
 06978 -14 0936 Mar 25 18:04:49 1944 -13157 T -0.9284 1.0555 59.4S 48.5W 21 496 03m37s
 07019 -13 0954 Apr 06 01:59:15 1830 -12934 T -0.8778 1.0611 50.3S 178.9W 28 417 04m20s
 07060 -12 0972 Apr 16 09:46:46 1721 -12711 T -0.8213 1.0660 41.4S 56.2E 34 376 05m04s
 07100 -11 0990 Apr 27 17:28:21 1617 -12488 T -0.7599 1.0700 33.0S 65.2W 40 349 05m45s
 07142 -10 1008 May 08 01:04:50 1517 -12265 T -0.6940 1.0734 25.1S 175.9E 46 330 06m22s
 07184 -09 1026 May 19 08:37:49 1421 -12042 T -0.6251 1.0758 17.8S 58.9E 51 314 06m52s
 07226 -08 1044 May 29 16:06:22 1331 -11819 T -0.5525 1.0775 11.1S 56.2W 56 300 07m12s
 07270 -07 1062 Jun 09 23:34:05 1244 -11596 T -0.4793 1.0781 5.2S 170.2W 61 287 07m20s
 07314 -06 1080 Jun 20 07:00:13 1163 -11373 T -0.4047 1.0779 0.2S 76.9E 66 275 07m18s
 07359 -05 1098 Jul 01 14:28:20 1086 -11150 T -0.3320 1.0768 3.8N 35.8W 71 263 07m05s
 07405 -04 1116 Jul 11 21:56:21 1013 -10927 T -0.2594 1.0748 6.8N 148.0W 75 251 06m46s
 07450 -03 1134 Jul 23 05:29:19 944 -10704 T -0.1910 1.0720 8.6N 99.0E 79 238 06m21s
 07495 -02 1152 Aug 02 13:04:59 880 -10481 T -0.1250 1.0685 9.5N 14.4W 83 225 05m55s
 07540 -01 1170 Aug 13 20:46:50 819 -10258 T -0.0646 1.0645 9.3N 129.3W 86 211 05m28s
 07586 00 1188 Aug 24 04:32:58 763 -10035 Tm -0.0082 1.0598 8.4N 114.6E 90 197 05m01s
 07631 01 1206 Sep 04 12:27:26 710 -9812 T 0.0409 1.0549 6.8N 3.7W 88 181 04m36s
 07677 02 1224 Sep 14 20:27:49 660 -9589 T 0.0847 1.0496 4.7N 123.7W 85 165 04m11s
 07722 03 1242 Sep 26 04:35:39 614 -9366 T 0.1219 1.0443 2.2N 114.3E 83 149 03m48s
 07766 04 1260 Oct 06 12:50:25 571 -9143 T 0.1527 1.0390 0.4S 9.6W 81 132 03m25s
 07810 05 1278 Oct 17 21:13:01 530 -8920 T 0.1762 1.0338 3.0S 135.4W 80 116 03m03s

07853	06	1296	Oct 28	05:41:29	493	-8697	T	0.1946	1.0289	5.5S	97.2E	79	100	02m41s
07895	07	1314	Nov 08	14:15:05	457	-8474	T	0.2080	1.0244	7.6S	31.3W	78	85	02m20s
07937	08	1332	Nov 18	22:53:10	424	-8251	T	0.2172	1.0202	9.2S	160.8W	78	71	02m01s
07978	09	1350	Nov 30	07:34:51	393	-8028	H3	0.2227	1.0166	10.3S	68.8E	77	58	01m42s
08019	10	1368	Dec 10	16:17:17	364	-7805	H	0.2270	1.0135	10.5S	61.6W	77	48	01m25s
08060	11	1386	Dec 22	01:00:27	337	-7582	H	0.2300	1.0109	10.0S	167.7E	77	39	01m10s
08100	12	1405	Jan 01	09:41:37	311	-7359	H	0.2343	1.0089	8.6S	37.5E	77	32	00m57s
08140	13	1423	Jan 12	18:20:19	286	-7136	H	0.2400	1.0073	6.2S	92.4W	76	26	00m48s
08180	14	1441	Jan 23	02:52:50	263	-6913	H	0.2503	1.0062	2.9S	138.9E	76	22	00m40s
08220	15	1459	Feb 03	11:20:41	241	-6690	H	0.2638	1.0054	1.1N	11.1E	75	19	00m34s
08260	16	1477	Feb 13	19:40:23	220	-6467	H	0.2833	1.0048	6.0N	115.0W	74	17	00m30s
08300	17	1495	Feb 25	03:52:03	201	-6244	H	0.3090	1.0044	11.5N	120.5E	72	16	00m27s
08342	18	1513	Mar 07	11:54:03	182	-6021	H	0.3421	1.0040	17.6N	1.8W	70	15	00m24s
08384	19	1531	Mar 18	19:47:21	166	-5798	H	0.3818	1.0036	24.3N	122.1W	67	13	00m21s
08425	20	1549	Mar 29	03:30:55	150	-5575	H	0.4285	1.0029	31.4N	120.1E	64	11	00m16s
08466	21	1567	Apr 09	11:04:08	137	-5352	H	0.4830	1.0020	38.9N	4.9E	61	8	00m11s
08507	22	1585	Apr 29	18:28:58	126	-5129	H	0.5436	1.0005	46.6N	107.7W	57	2	00m03s
08548	23	1603	May 11	01:44:59	115	-4906	A	0.6107	0.9987	54.7N	142.6E	52	6	00m07s
08590	24	1621	May 21	08:53:44	92	-4683	A	0.6828	0.9962	63.1N	36.1E	47	18	00m18s
08635	25	1639	Jun 01	15:55:16	65	-4460	A	0.7597	0.9930	71.7N	65.3W	40	38	00m31s
08680	26	1657	Jun 11	22:52:09	39	-4237	A	0.8395	0.9888	80.5N	153.7W	33	73	00m45s
08726	27	1675	Jun 23	05:44:39	18	-4014	A	0.9219	0.9835	84.1N	166.1W	22	154	01m01s
08771	28	1693	Jul 03	12:33:52	8	-3791	P	1.0058	0.9718	64.8N	146.3E	0		
08816	29	1711	Jul 15	19:22:11	9	-3568	P	1.0894	0.8216	63.9N	34.6E	0		
08861	30	1729	Jul 26	02:10:40	11	-3345	P	1.1718	0.6746	63.1N	76.9W	0		
08907	31	1747	Aug 06	09:01:21	12	-3122	P	1.2512	0.5339	62.4N	171.3E	0		
08952	32	1765	Aug 16	15:54:02	15	-2899	P	1.3279	0.3994	61.8N	59.2E	0		
08998	33	1783	Aug 27	22:52:06	17	-2676	P	1.3991	0.2757	61.4N	54.1W	0		

09043 34 1801 Sep 08 05:54:40 13 -2453 P 1.4657 0.1614 61.1N 168.5W 0
09088 35 1819 Sep 19 13:03:47 12 -2230 Pe 1.5258 0.0595 61.0N 75.6E 0

SAROS SERIES

113

Saros series 113 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

06157 -36 0586 Jul 22 01:07:19 4843 -17482 Pb 1.4880 0.0869 68.6N 15.5W 0
06202 -35 0604 Aug 01 08:37:51 4672 -17259 P 1.4301 0.1981 69.5N 140.7W 0
06247 -34 0622 Aug 12 16:12:43 4502 -17036 P 1.3763 0.3006 70.3N 92.4E 0
06292 -33 0640 Aug 22 23:54:28 4334 -16813 P 1.3287 0.3906 71.0N 36.8W 0
06338 -32 0658 Sep 03 07:42:11 4168 -16590 P 1.2866 0.4693 71.5N 167.9W 0
06384 -31 0676 Sep 13 15:37:12 4003 -16367 P 1.2509 0.5352 71.8N 58.7E 0
06428 -30 0694 Sep 24 23:39:10 3840 -16144 P 1.2216 0.5889 71.8N 76.6W 0
06471 -29 0712 Oct 05 07:48:54 3679 -15921 P 1.1989 0.6297 71.6N 146.2E 0

06514	-28	0730	Oct 16	16:04:50	3521	-15698	P	1.1824	0.6590	71.2N	7.8E	0
06556	-27	0748	Oct 27	00:26:16	3365	-15475	P	1.1709	0.6789	70.5N	131.5W	0
06598	-26	0766	Nov 07	08:52:52	3212	-15252	P	1.1644	0.6897	69.6N	88.5E	0
06639	-25	0784	Nov 17	17:23:51	3062	-15029	P	1.1619	0.6934	68.7N	52.0W	0
06680	-24	0802	Nov 29	01:56:35	2915	-14806	P	1.1616	0.6933	67.6N	167.8E	0
06721	-23	0820	Dec 09	10:30:28	2771	-14583	P	1.1629	0.6904	66.5N	27.9E	0
06761	-22	0838	Dec 20	19:02:58	2631	-14360	P	1.1638	0.6885	65.5N	111.2W	0
06801	-21	0856	Dec 31	03:34:01	2495	-14137	P	1.1642	0.6875	64.5N	110.5E	0
06841	-20	0875	Jan 11	11:59:11	2363	-13914	P	1.1603	0.6941	63.6N	25.9W	0
06881	-19	0893	Jan 21	20:20:19	2234	-13691	P	1.1538	0.7054	62.8N	161.0W	0
06921	-18	0911	Feb 02	04:32:54	2110	-13468	P	1.1410	0.7279	62.1N	66.3E	0
06961	-17	0929	Feb 12	12:38:40	1990	-13245	P	1.1233	0.7590	61.5N	64.5W	0
07003	-16	0947	Feb 23	20:33:12	1875	-13022	P	1.0972	0.8049	61.2N	167.6E	0
07044	-15	0965	Mar 06	04:19:59	1764	-12799	P	1.0655	0.8607	60.9N	41.8E	0
07084	-14	0983	Mar 17	11:55:18	1657	-12576	P	1.0251	0.9317	60.9N	81.1W	0
07126	-13	1001	Mar 27	19:20:56	1556	-12353	A	0.9775	0.9637	61.1N	178.0W	11 642 02m26s
07168	-12	1019	Apr 08	02:36:00	1458	-12130	A	0.9222	0.9663	60.6N	87.3E	22 311 02m23s
07210	-11	1037	Apr 18	09:42:40	1366	-11907	A	0.8607	0.9679	60.7N	9.9W	30 225 02m21s
07253	-10	1055	Apr 29	16:40:32	1278	-11684	A	0.7927	0.9687	60.8N	105.2W	37 183 02m22s
07296	-09	1073	May 09	23:30:35	1195	-11461	A	0.7189	0.9690	60.3N	161.7E	44 160 02m27s
07340	-08	1091	May 21	06:14:32	1116	-11238	A	0.6408	0.9687	58.7N	69.9E	50 146 02m37s
07386	-07	1109	May 31	12:53:47	1041	-11015	A	0.5596	0.9678	55.9N	21.8W	56 140 02m51s
07432	-06	1127	Jun 11	19:28:58	971	-10792	A	0.4756	0.9664	51.8N	114.2W	61 138 03m10s
07477	-05	1145	Jun 22	02:02:44	905	-10569	A	0.3909	0.9645	46.6N	151.7E	67 140 03m35s
07522	-04	1163	Jul 03	08:36:04	843	-10346	A	0.3064	0.9620	40.5N	55.9E	72 145 04m06s
07568	-03	1181	Jul 13	15:11:38	785	-10123	A	0.2244	0.9590	33.9N	42.0W	77 153 04m42s
07613	-02	1199	Jul 24	21:48:31	730	-9900	A	0.1439	0.9557	26.8N	141.4W	82 163 05m21s
07658	-01	1217	Aug 04	04:30:50	679	-9677	Am	0.0686	0.9520	19.4N	117.0E	86 176 06m01s

07704	00	1235	Aug 15	11:17:23	632	-9454	A	-0.0027	0.9481	11.9N	13.7E	90	191	06m40s
07749	01	1253	Aug 25	18:11:53	588	-9231	A	-0.0671	0.9440	4.4N	91.8W	86	207	07m16s
07793	02	1271	Sep 06	01:12:00	546	-9008	A	-0.1263	0.9398	3.0S	161.0E	83	225	07m48s
07836	03	1289	Sep 16	08:22:02	507	-8785	A	-0.1768	0.9357	10.1S	51.5E	80	243	08m15s
07878	04	1307	Sep 27	15:39:04	471	-8562	A	-0.2211	0.9317	16.9S	59.6W	77	261	08m39s
07920	05	1325	Oct 07	23:05:32	437	-8339	A	-0.2574	0.9281	23.2S	172.5W	75	279	08m57s
07961	06	1343	Oct 19	06:39:25	405	-8116	A	-0.2873	0.9247	29.0S	73.3E	73	296	09m12s
08003	07	1361	Oct 29	14:21:52	375	-7893	A	-0.3101	0.9219	34.1S	42.1W	72	310	09m22s
08044	08	1379	Nov 09	22:10:29	347	-7670	A	-0.3275	0.9195	38.3S	158.0W	71	323	09m29s
08085	09	1397	Nov 20	06:04:18	321	-7447	A	-0.3407	0.9178	41.6S	85.7E	70	333	09m32s
08125	10	1415	Dec 01	14:02:32	296	-7224	A	-0.3503	0.9166	43.7S	30.7W	69	339	09m31s
08165	11	1433	Dec 11	22:03:44	272	-7001	A	-0.3579	0.9162	44.6S	147.3W	69	342	09m25s
08205	12	1451	Dec 23	06:05:20	249	-6778	A	-0.3651	0.9164	44.3S	96.0E	68	342	09m16s
08244	13	1470	Jan 02	14:05:56	228	-6555	A	-0.3733	0.9173	43.1S	20.7W	68	339	09m02s
08284	14	1488	Jan 13	22:03:45	208	-6332	A	-0.3840	0.9188	41.0S	137.4W	67	333	08m45s
08325	15	1506	Jan 24	05:58:07	189	-6109	A	-0.3979	0.9209	38.3S	106.1E	66	325	08m26s
08367	16	1524	Feb 04	13:45:35	172	-5886	A	-0.4176	0.9235	35.4S	9.3W	65	315	08m05s
08409	17	1542	Feb 14	21:27:23	156	-5663	A	-0.4424	0.9265	32.5S	123.8W	64	305	07m44s
08450	18	1560	Feb 26	05:00:44	142	-5440	A	-0.4741	0.9299	29.9S	123.5E	62	294	07m22s
08491	19	1578	Mar 08	12:26:52	130	-5217	A	-0.5120	0.9336	27.7S	12.3E	59	284	07m01s
08532	20	1596	Mar 28	19:43:19	120	-4994	A	-0.5583	0.9373	26.3S	96.5W	56	275	06m41s
08573	21	1614	Apr 09	02:52:58	102	-4771	A	-0.6103	0.9411	25.7S	156.2E	52	268	06m22s
08617	22	1632	Apr 19	09:54:30	76	-4548	A	-0.6694	0.9447	26.4S	50.8E	48	267	06m03s
08662	23	1650	Apr 30	16:48:49	49	-4325	A	-0.7347	0.9481	28.5S	52.9W	43	274	05m43s
08708	24	1668	May 10	23:37:24	25	-4102	A	-0.8049	0.9510	32.3S	155.4W	36	296	05m21s
08753	25	1686	May 22	06:21:20	10	-3879	A	-0.8791	0.9533	38.6S	103.3E	28	353	04m56s
08798	26	1704	Jun 02	13:02:36	9	-3656	A	-0.9561	0.9542	49.1S	3.4E	16	578	04m26s
08843	27	1722	Jun 13	19:40:19	10	-3433	P	-1.0364	0.9083	65.2S	93.5W	0		

08889	28	1740	Jun 24	02:18:54	12	-3210	P	-1.1163	0.7697	66.2S	156.7E	0
08935	29	1758	Jul 05	08:57:44	14	-2987	P	-1.1961	0.6302	67.2S	46.4E	0
08980	30	1776	Jul 15	15:39:29	17	-2764	P	-1.2739	0.4935	68.2S	65.1W	0
09026	31	1794	Jul 26	22:24:27	15	-2541	P	-1.3496	0.3599	69.1S	178.0W	0
09071	32	1812	Aug 07	05:15:50	12	-2318	P	-1.4205	0.2343	70.0S	67.0E	0
09116	33	1830	Aug 18	12:13:35	7	-2095	P	-1.4866	0.1171	70.7S	50.2W	0
09160	34	1848	Aug 28	19:18:22	7	-1872	Pe	-1.5475	0.0090	71.3S	169.6W	0

SAROS SERIES

114

Saros series 114 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

06320	-34	0651	Jul 23	09:28:50	4233	-16678	Pb	-1.5588	0.0086	63.1S	11.9E	0
06367	-33	0669	Aug 02	16:06:06	4068	-16455	P	-1.4861	0.1336	62.4S	97.3W	0
06412	-32	0687	Aug 13	22:50:13	3904	-16232	P	-1.4180	0.2500	61.7S	152.0E	0

06456 -31 0705 Aug 24 05:41:35 3742 -16009 P -1.3552 0.3570 61.3S 39.7E 0
 06498 -30 0723 Sep 04 12:42:29 3583 -15786 P -1.2996 0.4512 60.9S 74.9W 0
 06540 -29 0741 Sep 14 19:52:17 3426 -15563 P -1.2506 0.5335 60.8S 168.3E 0
 06582 -28 0759 Sep 26 03:11:57 3272 -15340 P -1.2093 0.6027 60.8S 49.1E 0
 06623 -27 0777 Oct 06 10:39:54 3121 -15117 P -1.1742 0.6611 60.9S 72.1W 0
 06664 -26 0795 Oct 17 18:17:55 2973 -14894 P -1.1468 0.7065 61.3S 164.1E 0
 06705 -25 0813 Oct 28 02:03:14 2828 -14671 P -1.1249 0.7426 61.8S 38.4E 0
 06746 -24 0831 Nov 08 09:55:47 2686 -14448 P -1.1085 0.7696 62.4S 89.2W 0
 06785 -23 0849 Nov 18 17:53:57 2548 -14225 P -1.0962 0.7898 63.2S 141.5E 0
 06825 -22 0867 Nov 30 01:57:13 2414 -14002 P -1.0880 0.8035 64.1S 10.7E 0
 06865 -21 0885 Dec 10 10:02:13 2284 -13779 P -1.0804 0.8164 65.2S 120.9W 0
 06905 -20 0903 Dec 21 18:08:11 2159 -13556 P -1.0730 0.8293 66.2S 106.9E 0
 06945 -19 0922 Jan 01 02:12:56 2037 -13333 P -1.0642 0.8447 67.3S 25.5W 0
 06986 -18 0940 Jan 12 10:16:11 1920 -13110 P -1.0538 0.8631 68.4S 158.0W 0
 07027 -17 0958 Jan 22 18:13:32 1807 -12887 P -1.0380 0.8911 69.5S 70.3E 0
 07068 -16 0976 Feb 03 02:06:44 1699 -12664 A- -1.0182 0.9262 70.4S 61.0W 0
 07110 -15 0994 Feb 13 09:51:58 1595 -12441 As -0.9912 0.9303 74.3S 151.1E 6 - 04m33s
 07152 -14 1012 Feb 24 17:31:58 1496 -12218 A -0.9593 0.9376 71.7S 11.9W 16 845 04m32s
 07194 -13 1030 Mar 07 01:01:54 1402 -11995 A -0.9185 0.9445 64.1S 147.6W 23 519 04m25s
 07236 -12 1048 Mar 17 08:26:35 1312 -11772 A -0.8726 0.9514 55.6S 88.7E 29 363 04m13s
 07280 -11 1066 Mar 28 15:41:57 1227 -11549 A -0.8181 0.9582 46.7S 28.8W 35 262 03m57s
 07324 -10 1084 Apr 07 22:52:04 1146 -11326 A -0.7585 0.9649 38.1S 142.9W 40 192 03m35s
 07369 -09 1102 Apr 19 05:54:33 1070 -11103 A -0.6913 0.9714 29.5S 106.2E 46 141 03m07s
 07414 -08 1120 Apr 29 12:53:54 998 -10880 A -0.6205 0.9777 21.3S 2.9W 51 101 02m34s
 07459 -07 1138 May 10 19:48:33 930 -10657 A -0.5447 0.9835 13.5S 110.0W 57 70 01m58s
 07504 -06 1156 May 21 02:40:45 867 -10434 A -0.4656 0.9889 6.3S 144.3E 62 44 01m21s
 07549 -05 1174 Jun 01 09:31:50 807 -10211 A -0.3843 0.9938 0.3N 39.7E 67 24 00m45s
 07595 -04 1192 Jun 11 16:23:44 751 -9988 A -0.3023 0.9981 6.0N 64.3W 72 7 00m14s

07641	-03	1210	Jun 22	23:17:17	699	-9765	H	-0.2207	1.0018	10.8N	168.0W	77	6	00m12s
07687	-02	1228	Jul 03	06:13:46	650	-9542	H	-0.1404	1.0049	14.6N	88.3E	82	17	00m32s
07732	-01	1246	Jul 14	13:15:19	605	-9319	H	-0.0631	1.0074	17.2N	16.2W	86	26	00m46s
07776	00	1264	Jul 24	20:22:44	562	-9096	H	0.0104	1.0093	18.8N	121.9W	89	32	00m56s
07819	01	1282	Aug 05	03:35:56	522	-8873	H	0.0799	1.0107	19.4N	131.1E	85	37	01m01s
07862	02	1300	Aug 15	10:57:25	485	-8650	Hm	0.1434	1.0115	19.0N	22.0E	82	40	01m05s
07904	03	1318	Aug 26	18:27:19	450	-8427	H	0.2005	1.0120	17.9N	89.6W	78	42	01m06s
07945	04	1336	Sep 06	02:06:58	418	-8204	H	0.2506	1.0122	16.2N	156.1E	75	43	01m07s
07986	05	1354	Sep 17	09:54:40	387	-7981	H	0.2947	1.0122	14.2N	39.3E	73	44	01m07s
08027	06	1372	Sep 27	17:53:15	358	-7758	H	0.3305	1.0121	11.9N	80.4W	71	44	01m07s
08069	07	1390	Oct 09	02:00:26	331	-7535	H	0.3598	1.0120	9.6N	157.3E	69	44	01m07s
08109	08	1408	Oct 19	10:16:59	305	-7312	H	0.3820	1.0121	7.3N	32.6E	67	45	01m10s
08149	09	1426	Oct 30	18:40:38	281	-7089	H	0.3991	1.0123	5.2N	94.1W	66	46	01m13s
08189	10	1444	Nov 10	03:12:20	258	-6866	H	0.4102	1.0130	3.5N	137.2E	66	49	01m18s
08229	11	1462	Nov 21	11:49:24	236	-6643	H	0.4176	1.0139	2.2N	7.2E	65	52	01m26s
08269	12	1480	Dec 01	20:30:38	216	-6420	H2	0.4218	1.0155	1.5N	123.9W	65	58	01m37s
08309	13	1498	Dec 13	05:15:08	197	-6197	T	0.4242	1.0174	1.5N	104.3E	65	66	01m50s
08351	14	1516	Dec 23	14:00:51	179	-5974	T	0.4256	1.0199	2.2N	27.9W	65	75	02m05s
08392	15	1535	Jan 03	22:45:49	162	-5751	T	0.4285	1.0228	3.8N	160.1W	65	86	02m22s
08433	16	1553	Jan 14	07:28:09	147	-5528	T	0.4340	1.0263	6.3N	68.3E	64	99	02m41s
08474	17	1571	Jan 25	16:07:36	135	-5305	T	0.4422	1.0302	9.5N	62.8W	64	113	02m59s
08515	18	1589	Feb 15	00:42:20	124	-5082	T	0.4545	1.0344	13.6N	167.1E	63	129	03m17s
08556	19	1607	Feb 26	09:10:38	111	-4859	T	0.4727	1.0388	18.4N	38.2E	62	147	03m34s
08600	20	1625	Mar 08	17:32:39	86	-4636	T	0.4965	1.0434	23.9N	89.4W	60	166	03m50s
08645	21	1643	Mar 20	01:47:19	59	-4413	T	0.5271	1.0479	30.0N	144.6E	58	186	04m02s
08690	22	1661	Mar 30	09:55:24	34	-4190	T	0.5634	1.0524	36.7N	20.2E	55	209	04m12s
08736	23	1679	Apr 10	17:55:13	15	-3967	T	0.6070	1.0565	43.8N	102.2W	52	233	04m17s
08781	24	1697	Apr 21	01:49:22	8	-3744	T	0.6559	1.0602	51.4N	136.9E	49	262	04m18s

08826	25	1715	May 03	09:36:30	10	-3521	T	0.7112	1.0632	59.4N	17.9E	44	295	04m14s
08871	26	1733	May 13	17:18:29	11	-3298	T	0.7712	1.0656	67.9N	99.5W	39	339	04m06s
08917	27	1751	May 25	00:55:16	13	-3075	T	0.8359	1.0670	77.0N	144.7E	33	402	03m53s
08962	28	1769	Jun 04	08:28:34	16	-2852	T	0.9037	1.0671	87.3N	26.2E	25	521	03m36s
09008	29	1787	Jun 15	15:59:25	17	-2629	T	0.9739	1.0648	78.7N	104.8E	12	998	03m09s
09053	30	1805	Jun 26	23:27:40	12	-2406	P	1.0462	0.9357	65.5N	9.9W	0		
09098	31	1823	Jul 08	06:56:28	10	-2183	P	1.1182	0.7958	64.6N	132.0W	0		
09142	32	1841	Jul 18	14:25:14	5	-1960	P	1.1903	0.6556	63.7N	106.2E	0		
09185	33	1859	Jul 29	21:56:57	7	-1737	P	1.2598	0.5205	63.0N	16.0W	0		
09227	34	1877	Aug 09	05:30:24	-4	-1514	P	1.3277	0.3889	62.3N	138.6W	0		
09269	35	1895	Aug 20	13:09:16	-6	-1291	P	1.3911	0.2665	61.8N	97.7E	0		
09311	36	1913	Aug 31	20:52:12	15	-1068	P	1.4512	0.1513	61.5N	26.8W	0		
09354	37	1931	Sep 12	04:41:25	24	-845	Pe	1.5060	0.0471	61.2N	152.8W	0		

SAROS SERIES

115

Saros series 115 contains 72 solar eclipses.

NUM.	NUM.	DATE	OF	s	NUM.	TYPE	MAG.	°	°	ALT	WIDTH	DUR.
										GREATEST	°	km
ECLIPSE												

06348	-36	0662	Jun 21	15:58:36	4133	-16543	Pb	1.5377	0.0030	66.0N	148.9E	0
06394	-35	0680	Jul 01	23:10:18	3968	-16320	P	1.4605	0.1456	67.0N	29.8E	0
06438	-34	0698	Jul 13	06:25:23	3806	-16097	P	1.3851	0.2855	68.0N	90.6W	0
06481	-33	0716	Jul 23	13:47:09	3646	-15874	P	1.3140	0.4180	68.9N	146.8E	0
06524	-32	0734	Aug 03	21:14:27	3488	-15651	P	1.2467	0.5437	69.9N	22.2E	0
06566	-31	0752	Aug 14	04:50:37	3333	-15428	P	1.1859	0.6576	70.7N	105.2W	0
06607	-30	0770	Aug 25	12:34:31	3180	-15205	P	1.1309	0.7603	71.3N	125.0E	0
06648	-29	0788	Sep 04	20:26:59	3031	-14982	P	1.0824	0.8508	71.8N	7.6W	0
06689	-28	0806	Sep 16	04:28:29	2884	-14759	P	1.0409	0.9284	72.0N	142.7W	0
06730	-27	0824	Sep 26	12:39:01	2742	-14536	P	1.0062	0.9929	71.9N	79.8E	0
06770	-26	0842	Oct 07	20:58:30	2602	-14313	T	0.9787	1.0229	65.2N	84.3W	11 403 01m30s
06810	-25	0860	Oct 18	05:25:01	2467	-14090	T	0.9565	1.0241	58.5N	134.0E	16 286 01m42s
06850	-24	0878	Oct 29	13:59:59	2335	-13867	T	0.9411	1.0246	53.5N	3.7W	19 250 01m50s
06890	-23	0896	Nov 08	22:40:33	2208	-13644	T	0.9297	1.0251	49.5N	140.8W	21 234 01m57s
06930	-22	0914	Nov 20	07:26:39	2084	-13421	T	0.9225	1.0258	46.5N	81.8E	22 229 02m04s
06970	-21	0932	Nov 30	16:15:34	1965	-13198	T	0.9174	1.0267	44.3N	55.9W	23 230 02m11s
07011	-20	0950	Dec 12	01:07:14	1851	-12975	T	0.9143	1.0281	42.9N	166.1E	24 237 02m19s
07052	-19	0968	Dec 22	09:58:17	1741	-12752	T	0.9105	1.0300	41.8N	28.3E	24 246 02m28s
07093	-18	0987	Jan 02	18:48:09	1636	-12529	T	0.9056	1.0323	41.2N	108.9W	25 257 02m37s
07135	-17	1005	Jan 13	03:34:49	1535	-12306	T	0.8978	1.0352	40.7N	115.1E	26 267 02m48s
07177	-16	1023	Jan 24	12:18:00	1439	-12083	T	0.8869	1.0385	40.5N	19.7W	27 276 03m00s
07219	-15	1041	Feb 03	20:54:13	1347	-11860	T	0.8704	1.0424	40.4N	152.0W	29 283 03m13s
07262	-14	1059	Feb 15	05:24:50	1260	-11637	T	0.8492	1.0465	40.6N	77.7E	32 287 03m26s
07306	-13	1077	Feb 25	13:47:25	1178	-11414	T	0.8214	1.0510	41.0N	49.7W	35 290 03m40s
07350	-12	1095	Mar 08	22:03:57	1100	-11191	T	0.7883	1.0553	41.8N	174.8W	38 291 03m54s

07396	-11	1113	Mar 19	06:10:38	1026	-10968	T	0.7471	1.0598	42.7N	63.6E	41	290	04m08s
07441	-10	1131	Mar 30	14:11:49	957	-10745	T	0.7012	1.0639	43.9N	55.8W	45	289	04m22s
07486	-09	1149	Apr 09	22:04:02	891	-10522	T	0.6479	1.0676	44.9N	171.9W	49	286	04m38s
07531	-08	1167	Apr 21	05:51:40	830	-10299	T	0.5906	1.0709	45.8N	73.9E	54	284	04m53s
07577	-07	1185	May 01	13:30:57	773	-10076	T	0.5264	1.0736	46.0N	37.2W	58	280	05m10s
07622	-06	1203	May 12	21:07:30	719	-9853	T	0.4596	1.0755	45.5N	147.2W	62	275	05m26s
07668	-05	1221	May 23	04:38:19	669	-9630	T	0.3885	1.0767	43.9N	104.3E	67	269	05m43s
07714	-04	1239	Jun 03	12:07:17	622	-9407	T	0.3157	1.0771	41.3N	4.2W	71	263	05m58s
07759	-03	1257	Jun 13	19:33:21	579	-9184	T	0.2409	1.0765	37.6N	112.8W	76	255	06m11s
07803	-02	1275	Jun 25	02:59:56	538	-8961	T	0.1668	1.0752	33.0N	137.5E	80	247	06m21s
07846	-01	1293	Jul 05	10:26:45	499	-8738	T	0.0933	1.0730	27.5N	26.7E	84	238	06m24s
07888	00	1311	Jul 16	17:55:04	464	-8515	Tm	0.0216	1.0700	21.4N	85.4W	89	228	06m20s
07929	01	1329	Jul 27	01:26:16	430	-8292	T	-0.0471	1.0662	14.9N	160.9E	87	217	06m08s
07970	02	1347	Aug 07	09:01:38	399	-8069	T	-0.1116	1.0618	8.1N	45.7E	84	204	05m48s
08011	03	1365	Aug 17	16:41:46	369	-7846	T	-0.1716	1.0569	1.1N	71.2W	80	190	05m22s
08052	04	1383	Aug 29	00:27:38	342	-7623	T	-0.2262	1.0516	5.9S	170.2E	77	175	04m50s
08093	05	1401	Sep 08	08:20:21	315	-7400	T	-0.2746	1.0459	12.8S	49.9E	74	159	04m15s
08133	06	1419	Sep 19	16:20:21	291	-7177	T	-0.3162	1.0401	19.5S	72.1W	71	141	03m40s
08173	07	1437	Sep 30	00:26:45	267	-6954	T	-0.3519	1.0343	25.9S	164.7E	69	123	03m05s
08213	08	1455	Oct 11	08:40:44	245	-6731	T	-0.3809	1.0286	31.8S	40.2E	67	104	02m31s
08253	09	1473	Oct 21	17:01:28	224	-6508	T	-0.4040	1.0230	37.3S	85.1W	66	86	02m00s
08293	10	1491	Nov 02	01:28:47	204	-6285	T	-0.4209	1.0179	42.0S	148.9E	65	68	01m32s
08334	11	1509	Nov 12	10:00:15	186	-6062	H	-0.4338	1.0131	45.8S	23.2E	64	50	01m06s
08376	12	1527	Nov 23	18:36:38	169	-5839	H	-0.4422	1.0089	48.6S	102.5W	64	34	00m45s
08417	13	1545	Dec 04	03:15:42	153	-5616	H	-0.4480	1.0051	50.1S	132.1E	63	20	00m25s
08458	14	1563	Dec 15	11:55:49	139	-5393	H	-0.4524	1.0020	50.3S	6.8E	63	8	00m10s
08499	15	1581	Dec 25	20:35:20	128	-5170	A	-0.4567	0.9993	49.4S	118.5W	63	3	00m04s
08540	16	1600	Jan 16	05:12:46	118	-4947	A	-0.4623	0.9972	47.4S	115.9E	62	11	00m14s

08582	17	1618	Jan 26	13:46:44	97	-4724	A	-0.4700	0.9955	44.7S	9.7W	62	18	00m23s
08626	18	1636	Feb 06	22:14:33	70	-4501	A	-0.4825	0.9943	41.6S	134.7W	61	23	00m29s
08672	19	1654	Feb 17	06:36:38	43	-4278	A	-0.4991	0.9933	38.3S	100.9E	60	27	00m34s
08718	20	1672	Feb 28	14:50:43	21	-4055	A	-0.5218	0.9926	35.2S	22.0W	58	30	00m38s
08763	21	1690	Mar 10	22:56:00	9	-3832	A	-0.5512	0.9920	32.5S	143.0W	56	33	00m42s
08808	22	1708	Mar 22	06:51:37	9	-3609	A	-0.5879	0.9913	30.4S	98.3E	54	37	00m46s
08853	23	1726	Apr 02	14:38:16	10	-3386	A	-0.6313	0.9906	29.2S	18.3W	51	42	00m52s
08899	24	1744	Apr 12	22:15:24	12	-3163	A	-0.6819	0.9895	29.1S	132.6W	47	49	00m59s
08944	25	1762	Apr 24	05:42:10	15	-2940	A	-0.7402	0.9881	30.3S	115.6E	42	61	01m08s
08990	26	1780	May 04	13:00:42	17	-2717	A	-0.8043	0.9861	33.3S	5.9E	36	81	01m21s
09035	27	1798	May 15	20:10:32	14	-2494	A	-0.8744	0.9832	38.6S	101.6W	29	121	01m36s
09080	28	1816	May 27	03:13:24	12	-2271	A	-0.9492	0.9791	48.0S	153.5E	18	238	01m54s
09125	29	1834	Jun 07	10:08:38	6	-2048	P	-1.0291	0.9295	64.6S	55.4E	0		
09169	30	1852	Jun 17	16:59:50	7	-1825	P	-1.1111	0.7828	65.6S	57.3W	0		
09211	31	1870	Jun 28	23:46:43	0	-1602	P	-1.1949	0.6335	66.6S	169.4W	0		
09253	32	1888	Jul 09	06:30:52	-6	-1379	P	-1.2797	0.4832	67.6S	78.8E	0		
09295	33	1906	Jul 21	13:14:19	6	-1156	P	-1.3637	0.3355	68.6S	33.3W	0		
09337	34	1924	Jul 31	19:58:20	24	-933	P	-1.4459	0.1920	69.6S	146.0W	0		
09380	35	1942	Aug 12	02:45:12	26	-710	Pe	-1.5244	0.0561	70.4S	99.9E	0		

SAROS SERIES

116

Saros series 116 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

06507	-35	0727 Jun 23	22:34:35	3550	-15739	Pb	-1.4763	0.1082	65.4S	161.5W	0		
06549	-34	0745 Jul 04	05:53:18	3394	-15516	P	-1.4085	0.2381	64.5S	78.2E	0		
06591	-33	0763 Jul 15	13:14:24	3240	-15293	P	-1.3432	0.3625	63.7S	42.4W	0		
06632	-32	0781 Jul 25	20:37:53	3089	-15070	P	-1.2802	0.4816	62.9S	163.3W	0		
06673	-31	0799 Aug 06	04:06:08	2942	-14847	P	-1.2217	0.5910	62.2S	74.8E	0		
06714	-30	0817 Aug 16	11:38:18	2797	-14624	P	-1.1670	0.6921	61.7S	47.8W	0		
06754	-29	0835 Aug 27	19:17:30	2657	-14401	P	-1.1186	0.7805	61.3S	172.0W	0		
06794	-28	0853 Sep 07	03:02:42	2520	-14178	P	-1.0755	0.8578	61.0S	62.3E	0		
06834	-27	0871 Sep 18	10:54:51	2387	-13955	P	-1.0389	0.9224	60.9S	64.9W	0		
06874	-26	0889 Sep 28	18:54:00	2258	-13732	P	-1.0086	0.9748	61.0S	166.1E	0		
06914	-25	0907 Oct 10	03:00:37	2133	-13509	A	-0.9851	0.9869	62.7S	54.1E	9	291	00m47s
06954	-24	0925 Oct 20	11:14:00	2012	-13286	A	-0.9677	0.9827	64.9S	67.0W	14	250	01m03s
06995	-23	0943 Oct 31	19:32:08	1896	-13063	A	-0.9548	0.9783	67.8S	166.7E	17	265	01m19s
07036	-22	0961 Nov 11	03:56:16	1784	-12840	A	-0.9475	0.9739	71.3S	35.8E	18	298	01m35s
07076	-21	0979 Nov 22	12:23:31	1677	-12617	A	-0.9439	0.9699	75.0S	98.4W	19	335	01m49s
07118	-20	0997 Dec 02	20:53:29	1574	-12394	A	-0.9429	0.9663	78.7S	123.3E	19	374	02m02s
07160	-19	1015 Dec 14	05:22:20	1476	-12171	A	-0.9420	0.9633	82.5S	19.5W	19	407	02m14s

07202	-18	1033	Dec 24	13:51:14	1383	-11948	A	-0.9418	0.9609	85.6S	179.6W	19	434	02m24s
07245	-17	1052	Jan 04	22:16:17	1294	-11725	A	-0.9395	0.9591	86.3S	14.2W	20	446	02m33s
07289	-16	1070	Jan 15	06:37:03	1209	-11502	A	-0.9346	0.9580	83.3S	174.7E	20	440	02m42s
07333	-15	1088	Jan 26	14:50:56	1130	-11279	A	-0.9249	0.9575	78.9S	29.2E	22	415	02m50s
07379	-14	1106	Feb 05	22:58:18	1054	-11056	A	-0.9106	0.9575	73.6S	106.6W	24	378	02m59s
07424	-13	1124	Feb 17	06:56:07	983	-10833	A	-0.8893	0.9581	67.5S	123.0E	27	335	03m08s
07469	-12	1142	Feb 27	14:45:00	917	-10610	A	-0.8615	0.9589	60.8S	2.9W	30	293	03m17s
07514	-11	1160	Mar 09	22:23:38	854	-10387	A	-0.8259	0.9599	53.5S	124.9W	34	256	03m28s
07559	-10	1178	Mar 21	05:53:15	795	-10164	A	-0.7838	0.9610	46.0S	116.4E	38	225	03m39s
07604	-09	1196	Mar 31	13:11:09	740	-9941	A	-0.7326	0.9621	38.1S	1.4E	43	200	03m52s
07649	-08	1214	Apr 11	20:20:49	689	-9718	A	-0.6751	0.9629	30.2S	110.8W	47	180	04m05s
07695	-07	1232	Apr 22	03:20:16	640	-9495	A	-0.6097	0.9636	22.2S	140.3E	52	165	04m18s
07741	-06	1250	May 03	10:13:11	595	-9272	A	-0.5397	0.9639	14.6S	33.6E	57	155	04m32s
07785	-05	1268	May 13	16:56:23	553	-9049	A	-0.4622	0.9638	7.2S	69.9W	62	148	04m44s
07828	-04	1286	May 24	23:36:15	514	-8826	A	-0.3825	0.9632	0.4S	171.9W	68	144	04m55s
07871	-03	1304	Jun 04	06:09:36	478	-8603	A	-0.2977	0.9622	5.9N	88.6E	73	144	05m04s
07913	-02	1322	Jun 15	12:41:47	443	-8380	A	-0.2127	0.9607	11.4N	9.8W	78	146	05m11s
07954	-01	1340	Jun 25	19:10:38	411	-8157	A	-0.1253	0.9586	16.0N	106.7W	83	151	05m16s
07995	00	1358	Jul 07	01:41:45	381	-7934	Am	-0.0404	0.9562	19.6N	156.6E	88	160	05m22s
08036	01	1376	Jul 17	08:13:14	352	-7711	A	0.0439	0.9533	22.2N	60.3E	87	171	05m30s
08077	02	1394	Jul 28	14:48:17	326	-7488	A	0.1249	0.9501	23.7N	36.5W	83	184	05m40s
08117	03	1412	Aug 07	21:27:46	300	-7265	A	0.2018	0.9465	24.4N	134.5W	78	201	05m55s
08157	04	1430	Aug 19	04:13:52	276	-7042	A	0.2729	0.9428	24.2N	125.7E	74	219	06m13s
08197	05	1448	Aug 29	11:07:05	254	-6819	A	0.3380	0.9389	23.4N	23.8E	70	239	06m37s
08237	06	1466	Sep 09	18:07:54	232	-6596	A	0.3966	0.9351	22.2N	80.5W	67	260	07m05s
08277	07	1484	Sep 20	01:17:55	212	-6373	A	0.4474	0.9313	20.8N	172.4E	63	283	07m39s
08318	08	1502	Oct 01	08:36:17	193	-6150	A	0.4913	0.9277	19.3N	62.8E	60	306	08m16s
08360	09	1520	Oct 11	16:03:20	175	-5927	A	0.5277	0.9244	17.8N	49.4W	58	329	08m57s

08401	10	1538	Oct 22	23:38:41	159	-5704	A	0.5572	0.9214	16.6N	164.1W	56	351	09m41s
08442	11	1556	Nov 02	07:22:13	145	-5481	A	0.5798	0.9190	15.5N	78.9E	54	370	10m24s
08483	12	1574	Nov 13	15:12:17	132	-5258	A	0.5970	0.9171	14.8N	40.0W	53	387	11m03s
08524	13	1592	Dec 03	23:07:16	122	-5035	A	0.6102	0.9159	14.5N	160.2W	52	401	11m36s
08564	14	1610	Dec 15	07:06:48	106	-4812	A	0.6195	0.9153	14.7N	78.2E	52	409	11m56s
08608	15	1628	Dec 25	15:08:47	81	-4589	A	0.6265	0.9153	15.4N	44.0W	51	413	12m02s
08653	16	1647	Jan 05	23:10:59	53	-4366	A	0.6336	0.9161	16.9N	166.5W	51	413	11m50s
08699	17	1665	Jan 16	07:11:51	29	-4143	A	0.6420	0.9174	19.1N	71.2E	50	409	11m24s
08745	18	1683	Jan 27	15:10:09	12	-3920	A	0.6526	0.9195	22.1N	50.6W	49	401	10m44s
08790	19	1701	Feb 07	23:04:53	8	-3697	A	0.6663	0.9219	25.9N	171.7W	48	393	09m55s
08835	20	1719	Feb 19	06:52:57	10	-3474	A	0.6856	0.9250	30.5N	68.6E	47	384	09m01s
08881	21	1737	Mar 01	14:35:17	11	-3251	A	0.7099	0.9283	36.0N	50.1W	45	378	08m04s
08927	22	1755	Mar 12	22:09:32	14	-3028	A	0.7413	0.9319	42.2N	167.4W	42	375	07m07s
08972	23	1773	Mar 23	05:36:58	16	-2805	A	0.7785	0.9357	49.3N	76.2E	39	378	06m13s
09018	24	1791	Apr 03	12:55:13	16	-2582	A	0.8236	0.9394	57.1N	39.5W	34	394	05m21s
09063	25	1809	Apr 14	20:07:11	12	-2359	A	0.8742	0.9429	65.8N	157.3W	29	435	04m35s
09108	26	1827	Apr 26	03:11:14	9	-2136	A	0.9316	0.9458	74.8N	73.4E	21	559	03m53s
09152	27	1845	May 06	10:09:00	6	-1913	An	0.9945	0.9462	73.4N	110.6W	4	-	03m15s
09195	28	1863	May 17	17:00:45	7	-1690	P	1.0627	0.8606	69.2N	126.8E	0		
09237	29	1881	May 27	23:48:41	-5	-1467	P	1.1345	0.7370	68.2N	13.3E	0		
09279	30	1899	Jun 08	06:33:43	-4	-1244	P	1.2089	0.6076	67.2N	98.9W	0		
09321	31	1917	Jun 19	13:16:21	20	-1021	P	1.2857	0.4729	66.2N	150.1E	0		
09364	32	1935	Jun 30	19:59:46	24	-798	P	1.3623	0.3375	65.2N	39.1E	0		
09405	33	1953	Jul 11	02:44:14	30	-575	P	1.4388	0.2015	64.3N	71.7W	0		
09445	34	1971	Jul 22	09:31:55	42	-352	Pe	1.5130	0.0689	63.5N	177.0E	0		

SAROS SERIES

117

Saros series 117 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

06657	-34	0792	Jun 24	06:42:26	3000	-14935	Pb	1.5320	0.0523	66.4N	80.5W	0	
06698	-33	0810	Jul 05	13:05:52	2854	-14712	P	1.4484	0.1957	67.4N	172.4E	0	
06739	-32	0828	Jul 15	19:32:47	2712	-14489	P	1.3671	0.3348	68.4N	64.0E	0	
06778	-31	0846	Jul 27	02:04:20	2573	-14266	P	1.2888	0.4684	69.3N	46.2W	0	
06818	-30	0864	Aug 06	08:42:56	2439	-14043	P	1.2155	0.5928	70.2N	158.6W	0	
06858	-29	0882	Aug 17	15:29:23	2308	-13820	P	1.1482	0.7066	71.0N	86.3E	0	
06898	-28	0900	Aug 27	22:23:35	2181	-13597	P	1.0865	0.8104	71.6N	31.2W	0	
06938	-27	0918	Sep 08	05:27:33	2059	-13374	P	1.0322	0.9012	72.0N	151.7W	0	
06979	-26	0936	Sep 18	12:41:00	1941	-13151	An	0.9851	0.9215	70.1N	58.4E	9	- 05m59s
07020	-25	0954	Sep 29	20:04:21	1827	-12928	A	0.9454	0.9220	61.4N	80.1W	18	912 06m47s
07061	-24	0972	Oct 10	03:36:50	1718	-12705	A	0.9127	0.9216	54.0N	155.2E	24	724 07m31s
07101	-23	0990	Oct 21	11:18:41	1614	-12482	A	0.8870	0.9211	47.9N	32.3E	27	644 08m09s
07143	-22	1008	Oct 31	19:08:48	1514	-12259	A	0.8676	0.9207	43.0N	90.9W	29	601 08m43s
07185	-21	1026	Nov 12	03:05:07	1419	-12036	A	0.8527	0.9208	39.0N	145.2E	31	573 09m08s

07227	-20	1044	Nov 22	11:07:50	1328	-11813	A	0.8426	0.9213	36.0N	20.3E	32	555	09m24s
07271	-19	1062	Dec 03	19:13:41	1242	-11590	A	0.8342	0.9223	33.8N	105.1W	33	534	09m26s
07315	-18	1080	Dec 14	03:22:42	1161	-11367	A	0.8281	0.9239	32.4N	129.0E	34	512	09m16s
07360	-17	1098	Dec 25	11:30:26	1084	-11144	A	0.8201	0.9263	31.4N	3.5E	35	483	08m53s
07406	-16	1117	Jan 04	19:38:51	1011	-10921	A	0.8121	0.9292	31.0N	121.9W	35	450	08m19s
07451	-15	1135	Jan 16	03:43:17	943	-10698	A	0.7997	0.9329	30.9N	114.0E	37	410	07m39s
07496	-14	1153	Jan 26	11:44:14	878	-10475	A	0.7839	0.9372	31.1N	9.0W	38	367	06m53s
07541	-13	1171	Feb 06	19:38:30	818	-10252	A	0.7618	0.9421	31.6N	129.7W	40	321	06m05s
07587	-12	1189	Feb 17	03:27:37	761	-10029	A	0.7346	0.9475	32.3N	111.4E	43	276	05m18s
07632	-11	1207	Feb 28	11:09:12	708	-9806	A	0.7002	0.9534	33.2N	5.0W	45	232	04m32s
07678	-10	1225	Mar 10	18:43:38	659	-9583	A	0.6590	0.9596	34.3N	118.9W	49	190	03m49s
07723	-09	1243	Mar 22	02:10:26	613	-9360	A	0.6104	0.9659	35.5N	129.9E	52	152	03m08s
07767	-08	1261	Apr 01	09:30:56	570	-9137	A	0.5560	0.9724	36.6N	21.0E	56	117	02m31s
07811	-07	1279	Apr 12	16:44:05	529	-8914	A	0.4945	0.9788	37.4N	85.3W	60	86	01m55s
07854	-06	1297	Apr 22	23:51:57	492	-8691	A	0.4275	0.9850	37.7N	170.4E	64	58	01m22s
07896	-05	1315	May 04	06:54:52	457	-8468	A	0.3556	0.9909	37.3N	67.7E	69	34	00m51s
07938	-04	1333	May 14	13:55:23	424	-8245	A	0.2806	0.9964	36.1N	34.2W	74	13	00m20s
07979	-03	1351	May 25	20:52:03	393	-8022	H	0.2015	1.0016	33.7N	135.5W	78	6	00m09s
08020	-02	1369	Jun 05	03:49:31	363	-7799	H	0.1222	1.0061	30.4N	122.5E	83	21	00m37s
08061	-01	1387	Jun 16	10:46:23	336	-7576	H	0.0416	1.0100	26.0N	19.8E	87	35	01m03s
08101	00	1405	Jun 26	17:47:04	310	-7353	H	-0.0370	1.0134	20.9N	84.7W	88	46	01m26s
08141	01	1423	Jul 08	00:48:40	286	-7130	H2	-0.1158	1.0161	15.0N	169.7E	83	55	01m45s
08181	02	1441	Jul 18	07:57:16	262	-6907	T	-0.1896	1.0181	8.6N	61.6E	79	63	01m59s
08221	03	1459	Jul 29	15:10:11	240	-6684	T	-0.2605	1.0196	1.8N	48.2W	75	69	02m07s
08261	04	1477	Aug 08	22:30:57	220	-6461	T	-0.3257	1.0206	5.2S	160.5W	71	74	02m10s
08301	05	1495	Aug 20	05:58:28	200	-6238	T	-0.3862	1.0210	12.4S	85.1E	67	77	02m08s
08343	06	1513	Aug 30	13:35:52	182	-6015	T	-0.4392	1.0211	19.5S	31.9W	64	80	02m03s
08385	07	1531	Sep 10	21:21:52	165	-5792	T	-0.4857	1.0208	26.4S	151.0W	61	81	01m56s

08426	08	1549	Sep 21	05:16:24	150	-5569	T	-0.5257	1.0205	33.2S	88.0E	58	82	01m49s
08467	09	1567	Oct 02	13:20:27	137	-5346	T	-0.5584	1.0200	39.7S	34.9W	56	82	01m42s
08508	10	1585	Oct 22	21:33:25	126	-5123	T	-0.5846	1.0196	45.7S	159.2W	54	82	01m35s
08549	11	1603	Nov 03	05:54:55	114	-4900	T	-0.6041	1.0193	51.1S	75.6E	53	83	01m31s
08591	12	1621	Nov 13	14:23:13	91	-4677	T	-0.6187	1.0194	55.8S	49.7W	52	84	01m28s
08636	13	1639	Nov 24	22:58:55	64	-4454	T	-0.6278	1.0197	59.6S	174.7W	51	87	01m27s
08681	14	1657	Dec 05	07:39:36	38	-4231	T	-0.6335	1.0205	62.1S	61.3E	50	91	01m29s
08727	15	1675	Dec 16	16:24:03	18	-4008	T	-0.6367	1.0218	63.1S	62.0W	50	97	01m33s
08772	16	1693	Dec 27	01:10:50	8	-3785	T	-0.6387	1.0236	62.6S	174.3E	50	105	01m39s
08817	17	1712	Jan 08	09:58:39	9	-3562	T	-0.6406	1.0258	60.6S	49.2E	50	114	01m48s
08863	18	1730	Jan 18	18:45:15	11	-3339	T	-0.6440	1.0285	57.8S	77.4W	50	126	01m59s
08909	19	1748	Jan 30	03:29:13	13	-3116	T	-0.6501	1.0316	54.4S	154.8E	49	140	02m12s
08954	20	1766	Feb 09	12:09:44	15	-2893	T	-0.6598	1.0352	50.7S	26.6E	48	156	02m27s
09000	21	1784	Feb 20	20:45:38	17	-2670	T	-0.6739	1.0389	47.2S	101.5W	47	174	02m44s
09045	22	1802	Mar 04	05:14:29	13	-2447	T	-0.6943	1.0428	44.0S	131.5E	46	196	03m02s
09090	23	1820	Mar 14	13:37:15	12	-2224	T	-0.7199	1.0467	41.5S	5.7E	44	220	03m20s
09134	24	1838	Mar 25	21:52:16	5	-2001	T	-0.7525	1.0505	39.7S	118.3W	41	249	03m39s
09177	25	1856	Apr 05	06:01:01	7	-1778	T	-0.7906	1.0539	39.1S	119.2E	38	285	03m56s
09220	26	1874	Apr 16	14:00:53	-3	-1555	T	-0.8364	1.0569	39.9S	0.9W	33	335	04m11s
09262	27	1892	Apr 26	21:55:20	-6	-1332	T	-0.8870	1.0591	42.5S	119.4W	27	414	04m19s
09304	28	1910	May 09	05:42:13	11	-1109	T	-0.9437	1.0600	48.2S	125.2E	19	594	04m15s
09346	29	1928	May 19	13:24:20	24	-886	T	-1.0048	1.0140	63.3S	22.5E	0		
09389	30	1946	May 30	21:00:24	28	-663	P	-1.0711	0.8865	64.1S	101.0W	0		
09429	31	1964	Jun 10	04:34:07	35	-440	P	-1.1393	0.7545	65.0S	135.9E	0		
09469	32	1982	Jun 21	12:04:33	53	-217	P	-1.2102	0.6168	65.9S	13.2E	0		
09508	33	2000	Jul 01	19:33:34	64	6	P	-1.2821	0.4768	66.9S	109.5W	0		
09548	34	2018	Jul 13	03:02:16	71	229	P	-1.3542	0.3365	67.9S	127.4E	0		
09588	35	2036	Jul 23	10:32:06	82	452	P	-1.4250	0.1991	68.9S	3.6E	0		

SAROS SERIES

118

Saros series 118 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
06682	-36	0803 May 24	13:35:52	2911	-14800	Pb	-1.5325	0.0122	68.1S	0.7W	0		
06723	-35	0821 Jun 03	20:45:44	2768	-14577	P	-1.4545	0.1561	67.1S	119.9W	0		
06763	-34	0839 Jun 15	03:56:24	2628	-14354	P	-1.3758	0.3023	66.1S	121.2E	0		
06803	-33	0857 Jun 25	11:08:23	2491	-14131	P	-1.2972	0.4494	65.1S	2.5E	0		
06843	-32	0875 Jul 06	18:24:50	2359	-13908	P	-1.2210	0.5929	64.2S	117.0W	0		
06883	-31	0893 Jul 17	01:45:18	2231	-13685	P	-1.1469	0.7327	63.4S	122.8E	0		
06923	-30	0911 Jul 28	09:12:23	2107	-13462	P	-1.0774	0.8640	62.6S	1.2E	0		
06963	-29	0929 Aug 07	16:45:08	1987	-13239	P	-1.0118	0.9880	62.0S	121.6W	0		
07004	-28	0947 Aug 19	00:26:53	1872	-13016	T	-0.9527	1.0357	51.3S	139.1E	17 393	02m29s	

07045 -27 0965 Aug 29 08:15:51 1761 -12793 T -0.8990 1.0377 47.1S 24.8E 26 283 02m41s
 07085 -26 0983 Sep 09 16:13:17 1655 -12570 T -0.8518 1.0386 45.7S 93.8W 31 242 02m44s
 07127 -25 1001 Sep 20 00:19:08 1553 -12347 T -0.8111 1.0388 46.1S 144.9E 36 218 02m43s
 07169 -24 1019 Oct 01 08:34:20 1456 -12124 T -0.7781 1.0386 47.8S 20.9E 39 202 02m40s
 07211 -23 1037 Oct 11 16:57:23 1363 -11901 T -0.7512 1.0382 50.3S 104.8W 41 191 02m36s
 07254 -22 1055 Oct 23 01:27:47 1276 -11678 T -0.7301 1.0377 53.4S 128.1E 43 183 02m32s
 07297 -21 1073 Nov 02 10:05:13 1192 -11455 T -0.7148 1.0373 56.8S 0.1E 44 178 02m29s
 07341 -20 1091 Nov 13 18:48:57 1114 -11232 T -0.7047 1.0371 60.3S 128.2W 45 175 02m26s
 07387 -19 1109 Nov 24 03:36:12 1039 -11009 T -0.6974 1.0372 63.5S 104.6E 46 175 02m26s
 07433 -18 1127 Dec 05 12:27:08 969 -10786 T -0.6930 1.0377 65.9S 21.2W 46 176 02m28s
 07478 -17 1145 Dec 15 21:18:46 903 -10563 T -0.6892 1.0387 67.0S 145.0W 46 180 02m32s
 07523 -16 1163 Dec 27 06:11:27 841 -10340 T -0.6860 1.0400 66.6S 91.5E 46 185 02m38s
 07569 -15 1182 Jan 06 15:00:32 783 -10117 T -0.6802 1.0419 64.4S 32.7W 47 192 02m48s
 07614 -14 1200 Jan 17 23:48:29 729 -9894 T -0.6731 1.0443 61.0S 159.1W 47 200 03m01s
 07659 -13 1218 Jan 28 08:30:17 678 -9671 T -0.6613 1.0470 56.5S 73.1E 48 209 03m17s
 07705 -12 1236 Feb 08 17:07:28 631 -9448 T -0.6454 1.0501 51.3S 55.5W 50 217 03m36s
 07750 -11 1254 Feb 19 01:36:18 586 -9225 T -0.6227 1.0534 45.4S 176.3E 51 225 03m59s
 07794 -10 1272 Mar 01 09:59:32 545 -9002 T -0.5954 1.0569 39.2S 48.6E 53 232 04m24s
 07837 -09 1290 Mar 12 18:13:59 506 -8779 T -0.5611 1.0604 32.7S 77.6W 56 238 04m52s
 07879 -08 1308 Mar 23 02:21:00 470 -8556 T -0.5205 1.0638 25.9S 157.8E 58 243 05m21s
 07921 -07 1326 Apr 03 10:19:38 436 -8333 T -0.4731 1.0668 19.0S 35.3E 62 246 05m49s
 07962 -06 1344 Apr 13 18:11:36 405 -8110 T -0.4200 1.0695 12.0S 85.4W 65 249 06m15s
 08004 -05 1362 Apr 25 01:56:16 375 -7887 T -0.3611 1.0717 5.2S 155.9E 69 249 06m37s
 08045 -04 1380 May 05 09:34:58 347 -7664 T -0.2973 1.0732 1.5N 39.2E 73 249 06m52s
 08086 -03 1398 May 16 17:08:41 320 -7441 T -0.2294 1.0741 7.7N 75.7W 77 247 06m59s
 08126 -02 1416 May 27 00:38:48 295 -7218 T -0.1584 1.0742 13.5N 171.0E 81 244 06m56s
 08166 -01 1434 Jun 07 08:05:20 271 -6995 T -0.0847 1.0735 18.7N 59.3E 85 239 06m45s
 08206 00 1452 Jun 17 15:30:42 249 -6772 Tm -0.0102 1.0719 23.0N 51.3W 90 234 06m26s

08245	01	1470	Jun 28	22:54:56	228	-6549	T	0.0650	1.0695	26.4N	161.0W	86	227	06m02s
08285	02	1488	Jul 09	06:20:51	208	-6326	T	0.1384	1.0663	28.9N	89.5E	82	219	05m36s
08326	03	1506	Jul 20	13:46:58	189	-6103	T	0.2112	1.0623	30.4N	19.8W	78	209	05m08s
08368	04	1524	Jul 30	21:17:39	172	-5880	T	0.2797	1.0577	30.8N	130.2W	74	198	04m40s
08410	05	1542	Aug 11	04:51:06	156	-5657	T	0.3454	1.0525	30.6N	118.6E	70	184	04m12s
08451	06	1560	Aug 21	12:30:55	142	-5434	T	0.4050	1.0469	29.7N	5.3E	66	170	03m44s
08492	07	1578	Sep 01	20:15:08	130	-5211	T	0.4602	1.0408	28.4N	109.6W	62	152	03m17s
08533	08	1596	Sep 22	04:07:03	120	-4988	T	0.5085	1.0346	26.8N	133.0E	59	134	02m50s
08574	09	1614	Oct 03	12:04:51	101	-4765	T	0.5511	1.0282	25.2N	13.5E	56	113	02m22s
08618	10	1632	Oct 13	20:09:39	75	-4542	T	0.5873	1.0220	23.7N	108.2W	54	91	01m55s
08663	11	1650	Oct 25	04:21:25	48	-4319	T	0.6170	1.0159	22.3N	127.9E	52	68	01m26s
08709	12	1668	Nov 04	12:40:05	25	-4096	H	0.6401	1.0102	21.1N	1.8E	50	45	00m57s
08754	13	1686	Nov 15	21:05:00	10	-3873	H	0.6578	1.0048	20.2N	126.0W	49	22	00m28s
08799	14	1704	Nov 27	05:33:53	9	-3650	A	0.6716	0.9999	19.7N	104.9E	48	1	00m01s
08844	15	1722	Dec 08	14:07:35	10	-3427	A	0.6808	0.9955	19.5N	25.4W	47	21	00m28s
08890	16	1740	Dec 18	22:43:17	12	-3204	A	0.6876	0.9917	19.9N	156.4W	46	40	00m53s
08936	17	1758	Dec 30	07:20:12	14	-2981	A	0.6929	0.9885	20.8N	72.2E	46	56	01m15s
08982	18	1777	Jan 09	15:55:35	17	-2758	A	0.6988	0.9859	22.4N	58.9W	46	70	01m32s
09028	19	1795	Jan 21	00:29:13	15	-2535	A	0.7055	0.9837	24.8N	170.3E	45	81	01m44s
09073	20	1813	Feb 01	08:58:27	12	-2312	A	0.7152	0.9820	27.9N	40.4E	44	91	01m53s
09118	21	1831	Feb 12	17:21:45	7	-2089	A	0.7288	0.9807	31.9N	88.3W	43	100	01m57s
09162	22	1849	Feb 23	01:38:09	7	-1866	A	0.7475	0.9796	36.7N	144.3E	41	108	01m58s
09204	23	1867	Mar 06	09:46:48	4	-1643	A	0.7716	0.9787	42.3N	18.4E	39	118	01m57s
09246	24	1885	Mar 16	17:45:43	-6	-1420	A	0.8030	0.9778	48.9N	106.1W	36	132	01m55s
09288	25	1903	Mar 29	01:35:23	2	-1197	A	0.8413	0.9767	56.2N	130.3E	32	153	01m53s
09330	26	1921	Apr 08	09:15:01	22	-974	A	0.8869	0.9753	64.5N	5.6E	27	192	01m50s
09373	27	1939	Apr 19	16:45:53	24	-751	A	0.9388	0.9731	73.1N	129.1W	20	285	01m49s
09414	28	1957	Apr 30	00:05:28	32	-528	A+	0.9992	0.9799	70.6N	40.3E	0		

09454	29	1975 May 11 07:17:33	46	-305	P	1.0647	0.8636	69.7N	80.2W	0
09493	30	1993 May 21 14:20:15	59	-82	P	1.1372	0.7352	68.8N	162.3E	0
09532	31	2011 Jun 01 21:17:18	67	141	P	1.2130	0.6010	67.8N	46.8E	0
09572	32	2029 Jun 12 04:06:13	77	364	P	1.2943	0.4576	66.8N	66.2W	0
09612	33	2047 Jun 23 10:52:31	91	587	P	1.3766	0.3129	65.8N	178.0W	0
09653	34	2065 Jul 03 17:33:52	125	810	P	1.4619	0.1638	64.8N	71.9E	0
09694	35	2083 Jul 15 00:14:23	165	1033	Pe	1.5465	0.0168	64.0N	37.7W	0

SAROS SERIES

119

Saros series 119 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
06787	-36	0850 May 15 12:49:29	2545	-14219	Pb	1.5295	0.0066	63.2N	138.7W	0			
06827	-35	0868 May 25 20:11:13	2411	-13996	P	1.4636	0.1327	64.0N	100.9E	0			
06867	-34	0886 Jun 06 03:28:26	2281	-13773	P	1.3944	0.2647	64.8N	18.7W	0			

06907	-33	0904	Jun 16	10:45:03	2155	-13550	P	1.3251	0.3964	65.8N	138.4W	0
06947	-32	0922	Jun 27	18:00:27	2034	-13327	P	1.2555	0.5277	66.7N	101.8E	0
06988	-31	0940	Jul 08	01:16:23	1917	-13104	P	1.1868	0.6564	67.7N	18.5W	0
07029	-30	0958	Jul 19	08:34:18	1804	-12881	P	1.1204	0.7797	68.7N	139.8W	0
07069	-29	0976	Jul 29	15:55:20	1696	-12658	P	1.0571	0.8957	69.6N	97.6E	0
07111	-28	0994	Aug 09	23:21:16	1592	-12435	T+	0.9985	1.0017	70.5N	26.8W	0
07153	-27	1012	Aug 20	06:50:51	1494	-12212	T	0.9437	1.0086	73.0N	143.6E	19 91 00m32s
07195	-26	1030	Aug 31	14:27:31	1399	-11989	H	0.8957	1.0044	64.8N	6.5E	26 34 00m18s
07237	-25	1048	Sep 10	22:09:40	1310	-11766	A	0.8530	0.9995	56.8N	119.9W	31 4 00m02s
07281	-24	1066	Sep 22	05:59:31	1225	-11543	A	0.8173	0.9941	49.7N	115.7E	35 35 00m29s
07325	-23	1084	Oct 02	13:55:25	1144	-11320	A	0.7874	0.9887	43.3N	8.6W	38 64 01m00s
07370	-22	1102	Oct 13	21:59:25	1068	-11097	A	0.7648	0.9833	37.8N	133.9W	40 91 01m35s
07415	-21	1120	Oct 24	06:09:13	996	-10874	A	0.7478	0.9781	33.2N	100.0E	41 117 02m12s
07460	-20	1138	Nov 04	14:24:41	929	-10651	A	0.7362	0.9732	29.4N	27.2W	42 141 02m51s
07505	-19	1156	Nov 14	22:44:29	865	-10428	A	0.7287	0.9687	26.5N	155.2W	43 164 03m28s
07550	-18	1174	Nov 26	07:08:31	806	-10205	A	0.7250	0.9648	24.4N	76.0E	43 185 04m02s
07596	-17	1192	Dec 06	15:33:28	750	-9982	A	0.7228	0.9614	23.1N	52.9W	44 203 04m30s
07642	-16	1210	Dec 17	23:58:47	698	-9759	A	0.7215	0.9585	22.5N	178.1E	44 217 04m51s
07688	-15	1228	Dec 28	08:22:01	649	-9536	A	0.7190	0.9563	22.5N	49.7E	44 227 05m04s
07733	-14	1247	Jan 08	16:43:15	604	-9313	A	0.7154	0.9547	23.1N	78.1W	44 234 05m09s
07777	-13	1265	Jan 19	00:57:35	561	-9090	A	0.7068	0.9538	23.9N	156.0E	45 234 05m08s
07820	-12	1283	Jan 30	09:06:55	521	-8867	A	0.6948	0.9533	25.1N	31.5E	46 232 05m02s
07863	-11	1301	Feb 09	17:06:50	484	-8644	A	0.6757	0.9533	26.4N	90.3W	47 226 04m53s
07905	-10	1319	Feb 21	00:59:44	449	-8421	A	0.6516	0.9537	28.0N	150.1E	49 218 04m42s
07946	-09	1337	Mar 03	08:40:41	417	-8198	A	0.6182	0.9543	29.5N	34.1E	52 207 04m32s
07987	-08	1355	Mar 14	16:13:55	386	-7975	A	0.5792	0.9552	31.2N	79.3W	54 196 04m22s
08028	-07	1373	Mar 24	23:35:23	357	-7752	A	0.5311	0.9561	32.7N	170.9E	58 186 04m15s
08070	-06	1391	Apr 05	06:47:41	330	-7529	A	0.4761	0.9570	33.9N	64.2E	61 176 04m11s

08110	-05	1409	Apr 15	13:49:19	305	-7306	A	0.4130	0.9577	34.6N	39.1W	65	168	04m11s
08150	-04	1427	Apr 26	20:43:40	281	-7083	A	0.3444	0.9583	34.7N	140.2W	70	161	04m15s
08190	-03	1445	May 07	03:29:38	258	-6860	A	0.2692	0.9585	33.8N	121.2E	74	157	04m24s
08230	-02	1463	May 18	10:08:52	236	-6637	A	0.1890	0.9584	31.9N	24.2E	79	154	04m38s
08270	-01	1481	May 28	16:42:59	215	-6414	Am	0.1053	0.9577	28.8N	71.9W	84	155	04m57s
08310	00	1499	Jun 08	23:13:39	196	-6191	A	0.0195	0.9567	24.7N	167.8W	89	158	05m22s
08352	01	1517	Jun 19	05:41:31	178	-5968	A	-0.0683	0.9552	19.5N	96.1E	86	164	05m50s
08393	02	1535	Jun 30	12:08:20	162	-5745	A	-0.1565	0.9533	13.5N	0.6W	81	173	06m19s
08434	03	1553	Jul 10	18:36:34	147	-5522	A	-0.2430	0.9509	6.8N	98.5W	76	185	06m46s
08475	04	1571	Jul 22	01:07:18	134	-5299	A	-0.3266	0.9481	0.5S	162.1E	71	201	07m08s
08516	05	1589	Aug 11	07:41:04	124	-5076	A	-0.4072	0.9450	8.2S	61.4E	66	221	07m24s
08557	06	1607	Aug 22	14:20:48	110	-4853	A	-0.4824	0.9416	16.1S	41.4W	61	245	07m34s
08601	07	1625	Sep 01	21:06:57	86	-4630	A	-0.5520	0.9380	24.2S	146.4W	56	274	07m37s
08646	08	1643	Sep 13	04:01:21	58	-4407	A	-0.6145	0.9343	32.3S	106.3E	52	307	07m35s
08691	09	1661	Sep 23	11:02:34	33	-4184	A	-0.6711	0.9306	40.3S	3.0W	48	347	07m29s
08737	10	1679	Oct 04	18:13:56	15	-3961	A	-0.7191	0.9270	48.0S	114.9W	44	391	07m21s
08782	11	1697	Oct 15	01:33:41	8	-3738	A	-0.7603	0.9236	55.5S	131.2E	40	441	07m12s
08827	12	1715	Oct 27	09:02:48	10	-3515	A	-0.7939	0.9206	62.5S	15.5E	37	494	07m02s
08872	13	1733	Nov 06	16:40:15	11	-3292	A	-0.8208	0.9179	69.0S	101.2W	34	548	06m53s
08918	14	1751	Nov 18	00:26:00	13	-3069	A	-0.8411	0.9159	74.9S	142.8E	32	597	06m45s
08963	15	1769	Nov 28	08:18:40	16	-2846	A	-0.8559	0.9144	80.0S	32.0E	31	638	06m38s
09009	16	1787	Dec 09	16:15:38	16	-2623	A	-0.8675	0.9136	83.4S	62.7W	29	672	06m32s
09055	17	1805	Dec 21	00:17:38	12	-2400	A	-0.8751	0.9134	83.1S	143.8W	29	692	06m26s
09100	18	1824	Jan 01	08:21:09	10	-2177	A	-0.8821	0.9139	79.9S	116.2E	28	705	06m21s
09144	19	1842	Jan 11	16:25:41	5	-1954	A	-0.8882	0.9151	75.8S	1.4E	27	710	06m15s
09187	20	1860	Jan 23	00:27:31	8	-1731	A	-0.8969	0.9168	71.8S	117.2W	26	719	06m07s
09229	21	1878	Feb 02	08:27:52	-5	-1508	A	-0.9071	0.9191	67.9S	122.4E	24	729	05m59s
09271	22	1896	Feb 13	16:23:13	-6	-1285	A	-0.9220	0.9218	64.6S	3.5E	22	761	05m48s

09313	23	1914 Feb 25	00:13:01	16	-1062	A	-0.9416	0.9248	62.1S	113.3W	19	839	05m35s
09356	24	1932 Mar 07	07:55:50	24	-839	A	-0.9673	0.9277	60.7S	134.4E	14	1083	05m19s
09398	25	1950 Mar 18	15:32:01	29	-616	A-	-0.9988	0.9620	60.9S	40.9E	0		
09438	26	1968 Mar 28	23:00:30	38	-393	P	-1.0370	0.8990	61.0S	79.8W	0		
09478	27	1986 Apr 09	06:21:22	55	-170	P	-1.0822	0.8236	61.2S	161.4E	0		
09517	28	2004 Apr 19	13:35:05	65	53	P	-1.1335	0.7367	61.6S	44.3E	0		
09557	29	2022 Apr 30	20:42:36	73	276	P	-1.1901	0.6396	62.1S	71.5W	0		
09597	30	2040 May 11	03:43:02	85	499	P	-1.2529	0.5306	62.8S	174.4E	0		
09637	31	2058 May 22	10:39:25	110	722	P	-1.3194	0.4141	63.5S	61.1E	0		
09678	32	2076 Jun 01	17:31:22	149	945	P	-1.3897	0.2897	64.4S	51.2W	0		
09719	33	2094 Jun 13	00:22:11	190	1168	P	-1.4613	0.1618	65.3S	163.6W	0		
09760	34	2112 Jun 24	07:09:53	232	1391	Pe	-1.5356	0.0282	66.3S	84.4E	0		

SAROS SERIES

120

Saros series 120 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

06972	-33	0933	May 27	04:10:41	1962	-13192	Pb	-1.5258	0.0630	67.7S	132.3E	0
07013	-32	0951	Jun 07	10:33:36	1848	-12969	P	-1.4414	0.2073	66.7S	25.1E	0
07054	-31	0969	Jun 17	16:54:26	1738	-12746	P	-1.3547	0.3558	65.7S	81.0W	0
07094	-30	0987	Jun 28	23:17:31	1633	-12523	P	-1.2690	0.5024	64.8S	172.8E	0
07136	-29	1005	Jul 09	05:42:18	1532	-12300	P	-1.1837	0.6481	63.9S	66.5E	0
07178	-28	1023	Jul 20	12:11:29	1436	-12077	P	-1.1015	0.7883	63.0S	40.6W	0
07220	-27	1041	Jul 30	18:45:44	1345	-11854	P	-1.0226	0.9223	62.3S	148.7W	0
07263	-26	1059	Aug 11	01:27:30	1258	-11631	A	-0.9493	0.9337	49.9S	125.8E	18 775 06m10s
07307	-25	1077	Aug 21	08:17:11	1175	-11408	A	-0.8817	0.9344	43.9S	27.0E	28 502 06m21s
07351	-24	1095	Sep 01	15:14:39	1097	-11185	A	-0.8197	0.9343	41.2S	76.0W	35 414 06m24s
07397	-23	1113	Sep 11	22:22:41	1024	-10962	A	-0.7658	0.9336	40.5S	177.7E	40 373 06m24s
07442	-22	1131	Sep 23	05:39:54	955	-10739	A	-0.7188	0.9328	41.2S	68.9E	44 351 06m24s
07487	-21	1149	Oct 03	13:08:11	890	-10516	A	-0.6802	0.9320	43.0S	42.7W	47 339 06m24s
07532	-20	1167	Oct 14	20:44:41	829	-10293	A	-0.6477	0.9313	45.4S	156.0W	49 332 06m24s
07578	-19	1185	Oct 25	04:31:56	771	-10070	A	-0.6233	0.9308	48.4S	88.5E	51 328 06m24s
07623	-18	1203	Nov 05	12:25:54	718	-9847	A	-0.6037	0.9307	51.4S	27.9W	53 323 06m23s
07669	-17	1221	Nov 15	20:27:28	668	-9624	A	-0.5900	0.9310	54.2S	145.0W	54 319 06m20s
07715	-16	1239	Nov 27	04:33:35	621	-9401	A	-0.5795	0.9318	56.5S	98.1E	54 313 06m16s
07760	-15	1257	Dec 07	12:44:36	577	-9178	A	-0.5725	0.9332	57.9S	18.9W	55 305 06m09s
07804	-14	1275	Dec 18	20:56:34	537	-8955	A	-0.5657	0.9352	58.0S	135.5W	55 294 06m00s
07847	-13	1293	Dec 29	05:09:12	499	-8732	A	-0.5588	0.9379	56.8S	107.6E	56 279 05m48s
07889	-12	1312	Jan 09	13:20:03	463	-8509	A	-0.5500	0.9413	54.3S	10.2W	56 261 05m33s
07930	-11	1330	Jan 19	21:28:48	429	-8286	A	-0.5391	0.9452	50.6S	129.0W	57 240 05m16s
07971	-10	1348	Jan 31	05:31:34	398	-8063	A	-0.5226	0.9499	46.0S	111.9E	58 216 04m55s
08012	-09	1366	Feb 10	13:29:55	369	-7840	A	-0.5016	0.9549	40.6S	7.4W	60 190 04m32s

08053	-08	1384	Feb 21	21:20:45	341	-7617	A	-0.4738	0.9605	34.6S	126.0W	62	162	04m05s
08094	-07	1402	Mar 04	05:06:39	315	-7394	A	-0.4410	0.9665	28.2S	115.9E	64	134	03m34s
08134	-06	1420	Mar 14	12:42:57	290	-7171	A	-0.3994	0.9727	21.4S	0.3W	66	106	02m59s
08174	-05	1438	Mar 25	20:14:23	266	-6948	A	-0.3529	0.9790	14.5S	115.5W	69	80	02m21s
08214	-04	1456	Apr 05	03:37:14	244	-6725	A	-0.2980	0.9853	7.3S	131.5E	73	54	01m40s
08254	-03	1474	Apr 16	10:55:48	223	-6502	A	-0.2387	0.9916	0.2S	19.7E	76	30	00m58s
08294	-02	1492	Apr 26	18:07:10	204	-6279	A	-0.1723	0.9976	6.8N	90.0W	80	8	00m16s
08335	-01	1510	May 08	01:16:15	185	-6056	H	-0.1030	1.0033	13.5N	161.4E	84	12	00m22s
08377	00	1528	May 18	08:21:05	168	-5833	H	-0.0290	1.0085	19.9N	54.6E	88	29	00m56s
08418	01	1546	May 29	15:24:40	153	-5610	H	0.0470	1.0133	25.7N	51.0W	87	46	01m24s
08459	02	1564	Jun 08	22:26:49	139	-5387	H2	0.1253	1.0174	30.8N	155.4W	83	60	01m44s
08500	03	1582	Jun 20	05:30:27	128	-5164	T	0.2032	1.0210	35.0N	100.8E	78	73	01m59s
08541	04	1600	Jul 10	12:35:58	118	-4941	T	0.2804	1.0238	38.2N	2.7W	74	84	02m08s
08583	05	1618	Jul 21	19:44:30	96	-4718	T	0.3558	1.0260	40.4N	106.3W	69	94	02m13s
08627	06	1636	Aug 01	02:58:15	69	-4495	T	0.4279	1.0275	41.5N	148.9E	64	103	02m15s
08673	07	1654	Aug 12	10:17:43	42	-4272	T	0.4962	1.0285	41.7N	42.5E	60	110	02m16s
08719	08	1672	Aug 22	17:44:06	21	-4049	T	0.5594	1.0288	41.2N	66.2W	56	117	02m15s
08764	09	1690	Sep 03	01:17:47	9	-3826	T	0.6173	1.0287	40.3N	177.4W	52	122	02m13s
08809	10	1708	Sep 14	09:00:22	9	-3603	T	0.6685	1.0281	39.2N	68.3E	48	126	02m10s
08854	11	1726	Sep 25	16:51:45	10	-3380	T	0.7134	1.0273	38.0N	49.0W	44	129	02m07s
08900	12	1744	Oct 06	00:51:24	12	-3157	T	0.7521	1.0263	37.0N	169.1W	41	132	02m04s
08945	13	1762	Oct 17	09:00:34	15	-2934	T	0.7836	1.0253	36.2N	67.6E	38	135	02m02s
08991	14	1780	Oct 27	17:18:27	17	-2711	T	0.8083	1.0244	35.6N	58.6W	36	138	02m00s
09036	15	1798	Nov 08	01:44:39	14	-2488	T	0.8270	1.0237	35.1N	172.5E	34	141	01m59s
09081	16	1816	Nov 19	10:17:23	12	-2265	T	0.8408	1.0233	35.0N	41.5E	33	145	02m00s
09126	17	1834	Nov 30	18:56:35	6	-2042	T	0.8498	1.0233	34.9N	91.6W	32	150	02m02s
09170	18	1852	Dec 11	03:40:44	7	-1819	T	0.8551	1.0237	35.2N	133.9E	31	156	02m05s
09213	19	1870	Dec 22	12:27:33	-0	-1596	T	0.8585	1.0248	35.7N	1.5W	31	165	02m11s

09255	20	1889	Jan 01	21:16:50	-6	-1373	T	0.8603	1.0262	36.7N	137.6W	30	175	02m17s
09297	21	1907	Jan 14	06:05:43	6	-1150	T	0.8628	1.0281	38.3N	86.4E	30	189	02m25s
09339	22	1925	Jan 24	14:54:03	24	-927	T	0.8661	1.0304	40.5N	49.6W	30	206	02m32s
09382	23	1943	Feb 04	23:38:10	26	-704	T	0.8734	1.0331	43.6N	175.1E	29	229	02m39s
09422	24	1961	Feb 15	08:19:48	34	-481	T	0.8830	1.0360	47.4N	40.0E	28	258	02m45s
09462	25	1979	Feb 26	16:55:06	50	-258	T	0.8981	1.0391	52.1N	94.5W	26	298	02m49s
09501	26	1997	Mar 09	01:24:51	62	-35	T	0.9183	1.0420	57.8N	130.7E	23	356	02m50s
09541	27	2015	Mar 20	09:46:47	69	188	T	0.9454	1.0445	64.4N	6.6W	18	463	02m47s
09581	28	2033	Mar 30	18:02:36	80	411	T	0.9778	1.0462	71.3N	155.8W	11	781	02m37s
09621	29	2051	Apr 11	02:10:39	95	634	P	1.0169	0.9849	71.6N	32.2E	0		
09662	30	2069	Apr 21	10:11:09	133	857	P	1.0624	0.8992	71.0N	101.3W	0		
09703	31	2087	May 02	18:04:42	173	1080	P	1.1139	0.8011	70.3N	127.6E	0		
09744	32	2105	May 14	01:52:06	215	1303	P	1.1708	0.6921	69.4N	1.4W	0		
09785	33	2123	May 25	09:33:27	259	1526	P	1.2325	0.5729	68.5N	128.2W	0		
09826	34	2141	Jun 04	17:09:59	305	1749	P	1.2981	0.4458	67.5N	106.7E	0		
09868	35	2159	Jun 16	00:42:44	348	1972	P	1.3668	0.3124	66.5N	17.0W	0		
09911	36	2177	Jun 26	08:13:28	388	2195	P	1.4371	0.1758	65.5N	139.8W	0		
09955	37	2195	Jul 07	15:41:21	430	2418	Pe	1.5095	0.0353	64.6N	98.5E	0		

SAROS SERIES

121

Saros series 121 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
												°	km
GREATEST													
ECLIPSE													

06997	-36	0944	Apr 25	10:56:13	1893	-13057	Pb	1.5044	0.0666	62.0N	97.1W	0	
07038	-35	0962	May 06	18:15:23	1781	-12834	P	1.4334	0.1965	62.6N	143.6E	0	
07078	-34	0980	May 17	01:32:03	1674	-12611	P	1.3592	0.3338	63.3N	24.8E	0	
07120	-33	0998	May 28	08:46:18	1571	-12388	P	1.2820	0.4782	64.2N	93.7W	0	
07162	-32	1016	Jun 07	16:00:58	1473	-12165	P	1.2042	0.6246	65.1N	147.4E	0	
07204	-31	1034	Jun 18	23:16:23	1380	-11942	P	1.1262	0.7724	66.0N	28.1E	0	
07247	-30	1052	Jun 29	06:33:32	1291	-11719	P	1.0488	0.9196	67.0N	92.1W	0	
07290	-29	1070	Jul 10	13:54:30	1207	-11496	T	0.9739	1.0404	80.0N	133.7E	12	636 02m05s
07334	-28	1088	Jul 20	21:20:06	1128	-11273	T	0.9023	1.0453	80.7N	83.3W	25	356 02m36s
07380	-27	1106	Aug 01	04:51:33	1052	-11050	T	0.8348	1.0481	70.8N	142.2E	33	292 03m00s
07425	-26	1124	Aug 11	12:28:49	982	-10827	T	0.7716	1.0497	61.4N	20.4E	39	259 03m19s
07470	-25	1142	Aug 22	20:14:13	915	-10604	T	0.7147	1.0504	52.9N	100.7W	44	238 03m36s
07515	-24	1160	Sep 02	04:07:30	852	-10381	T	0.6640	1.0504	44.9N	137.1E	48	222 03m49s
07560	-23	1178	Sep 13	12:08:37	794	-10158	T	0.6196	1.0500	37.6N	13.3E	51	210 03m59s
07605	-22	1196	Sep 23	20:18:46	739	-9935	T	0.5821	1.0491	30.9N	112.3W	54	199 04m06s
07650	-21	1214	Oct 05	04:37:19	687	-9712	T	0.5513	1.0480	24.8N	120.3E	56	190 04m11s
07696	-20	1232	Oct 15	13:04:38	639	-9489	T	0.5277	1.0469	19.5N	8.9W	58	183 04m14s
07742	-19	1250	Oct 26	21:37:26	594	-9266	T	0.5085	1.0458	14.9N	139.2W	59	177 04m16s
07786	-18	1268	Nov 06	06:18:16	552	-9043	T	0.4959	1.0448	11.2N	88.8E	60	172 04m16s
07829	-17	1286	Nov 17	15:03:22	513	-8820	T	0.4865	1.0441	8.2N	43.9W	61	168 04m17s
07872	-16	1304	Nov 27	23:53:25	477	-8597	T	0.4812	1.0438	6.2N	177.7W	61	167 04m17s

07914	-15	1322	Dec 09	08:44:26	442	-8374	T	0.4767	1.0439	5.0N	48.4E	61	167	04m17s
07955	-14	1340	Dec 19	17:37:50	410	-8151	T	0.4741	1.0444	4.7N	86.0W	62	168	04m17s
07996	-13	1358	Dec 31	02:29:35	380	-7928	T	0.4701	1.0454	5.1N	140.0E	62	171	04m18s
08037	-12	1377	Jan 10	11:19:31	352	-7705	T	0.4646	1.0469	6.1N	6.5E	62	175	04m19s
08078	-11	1395	Jan 21	20:05:24	325	-7482	T	0.4555	1.0487	7.7N	126.0W	63	180	04m21s
08118	-10	1413	Feb 01	04:47:05	300	-7259	T	0.4429	1.0509	9.6N	102.6E	64	187	04m25s
08158	-09	1431	Feb 12	13:21:50	276	-7036	T	0.4245	1.0534	11.9N	26.9W	65	193	04m30s
08198	-08	1449	Feb 22	21:50:09	253	-6813	T	0.4008	1.0561	14.3N	154.6W	66	200	04m36s
08238	-07	1467	Mar 06	06:10:42	231	-6590	T	0.3706	1.0588	16.7N	79.9E	68	207	04m44s
08278	-06	1485	Mar 16	14:24:22	211	-6367	T	0.3345	1.0615	19.1N	43.6W	70	213	04m53s
08319	-05	1503	Mar 27	22:28:20	192	-6144	T	0.2904	1.0640	21.1N	164.1W	73	218	05m04s
08361	-04	1521	Apr 07	06:26:06	175	-5921	T	0.2414	1.0662	22.8N	77.3E	76	222	05m15s
08402	-03	1539	Apr 18	14:15:07	159	-5698	T	0.1853	1.0680	23.7N	38.7W	79	225	05m28s
08443	-02	1557	Apr 28	21:59:05	144	-5475	T	0.1251	1.0692	24.0N	153.1W	83	227	05m42s
08484	-01	1575	May 10	05:34:45	132	-5252	Tm	0.0583	1.0697	23.1N	94.6E	87	227	05m56s
08525	00	1593	May 30	13:07:31	122	-5029	T	-0.0106	1.0696	21.4N	17.0W	90	227	06m08s
08565	01	1611	Jun 10	20:34:26	105	-4806	T	-0.0836	1.0686	18.4N	127.6W	85	224	06m16s
08609	02	1629	Jun 21	03:59:24	80	-4583	T	-0.1580	1.0670	14.5N	121.6E	81	221	06m20s
08654	03	1647	Jul 02	11:21:21	53	-4360	T	-0.2344	1.0643	9.6N	11.0E	77	217	06m15s
08700	04	1665	Jul 12	18:44:06	28	-4137	T	-0.3095	1.0611	3.9N	100.6W	72	211	06m02s
08746	05	1683	Jul 24	02:07:00	12	-3914	T	-0.3838	1.0569	2.5S	147.1E	67	203	05m38s
08791	06	1701	Aug 04	09:31:44	8	-3691	T	-0.4559	1.0521	9.4S	33.7E	63	193	05m06s
08836	07	1719	Aug 15	16:59:51	10	-3468	T	-0.5243	1.0466	16.8S	81.1W	58	181	04m27s
08882	08	1737	Aug 26	00:32:08	11	-3245	T	-0.5886	1.0407	24.4S	162.5E	54	167	03m44s
08928	09	1755	Sep 06	08:09:46	14	-3022	T	-0.6478	1.0342	32.1S	44.3E	49	150	03m00s
08973	10	1773	Sep 16	15:52:23	16	-2799	T	-0.7020	1.0275	39.9S	75.5W	45	130	02m18s
09019	11	1791	Sep 27	23:42:30	16	-2576	T	-0.7492	1.0206	47.6S	162.4E	41	106	01m38s
09064	12	1809	Oct 09	07:38:42	12	-2353	T	-0.7905	1.0137	55.1S	38.4E	37	77	01m02s

09109	13	1827 Oct 20	15:42:05	8	-2130	H	-0.8251	1.0070	62.3S	87.6W	34	43	00m30s
09153	14	1845 Oct 30	23:51:58	6	-1907	H	-0.8538	1.0005	69.1S	144.5E	31	3	00m02s
09196	15	1863 Nov 11	08:09:03	7	-1684	A	-0.8760	0.9943	75.4S	15.1E	28	42	00m22s
09238	16	1881 Nov 21	16:31:10	-5	-1461	A	-0.8931	0.9887	81.2S	114.5W	26	90	00m43s
09280	17	1899 Dec 03	00:57:28	-3	-1238	A	-0.9061	0.9836	86.6S	121.5E	25	140	01m01s
09323	18	1917 Dec 14	09:27:20	20	-1015	A	-0.9157	0.9791	88.0S	124.7E	23	189	01m17s
09366	19	1935 Dec 25	17:59:52	24	-792	A	-0.9228	0.9752	83.5S	9.4E	22	234	01m30s
09407	20	1954 Jan 05	02:32:01	31	-569	A	-0.9296	0.9720	79.1S	120.8W	21	278	01m42s
09447	21	1972 Jan 16	11:03:22	42	-346	A	-0.9365	0.9692	74.9S	107.7E	20	321	01m53s
09486	22	1990 Jan 26	19:31:24	57	-123	A	-0.9457	0.9670	71.0S	22.2W	18	373	02m03s
09525	23	2008 Feb 07	03:56:10	66	100	A	-0.9570	0.9650	67.6S	150.5W	16	444	02m12s
09565	24	2026 Feb 17	12:13:06	75	323	A	-0.9743	0.9630	64.7S	86.8E	12	616	02m20s
09605	25	2044 Feb 28	20:24:39	88	546	As	-0.9954	0.9600	62.2S	25.6W	4	-	02m27s
09646	26	2062 Mar 11	04:26:16	118	769	P	-1.0238	0.9331	61.0S	147.1W	0		
09687	27	2080 Mar 21	12:20:15	157	992	P	-1.0578	0.8734	60.9S	85.9E	0		
09728	28	2098 Apr 01	20:02:31	198	1215	P	-1.1005	0.7984	61.0S	38.1W	0		
09769	29	2116 Apr 13	03:36:55	242	1438	P	-1.1487	0.7138	61.3S	160.2W	0		
09809	30	2134 Apr 24	10:59:59	287	1661	P	-1.2052	0.6147	61.8S	80.5E	0		
09851	31	2152 May 04	18:14:02	333	1884	P	-1.2679	0.5044	62.3S	36.8W	0		
09893	32	2170 May 16	01:18:33	372	2107	P	-1.3371	0.3831	63.0S	151.9W	0		
09937	33	2188 May 26	08:15:53	414	2330	P	-1.4109	0.2538	63.8S	94.6E	0		
09982	34	2206 Jun 07	15:05:59	457	2553	Pe	-1.4894	0.1166	64.7S	17.3W	0		

SAROS SERIES

122

Saros series 122 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
07103	-36	0991 Apr 17	10:00:06	1611	-12476	Pb	-1.5013	0.0624	70.8S	87.9E	0		
07145	-35	1009 Apr 27	17:33:05	1511	-12253	P	-1.4445	0.1700	70.1S	38.6W	0		
07187	-34	1027 May 09	01:00:48	1416	-12030	P	-1.3840	0.2848	69.3S	163.3W	0		
07229	-33	1045 May 19	08:21:52	1326	-11807	P	-1.3184	0.4089	68.3S	74.3E	0		
07273	-32	1063 May 30	15:39:34	1240	-11584	P	-1.2508	0.5365	67.4S	46.7W	0		
07317	-31	1081 Jun 09	22:52:36	1159	-11361	P	-1.1800	0.6695	66.4S	166.1W	0		
07362	-30	1099 Jun 21	06:05:15	1082	-11138	P	-1.1092	0.8015	65.4S	75.1E	0		
07407	-29	1117 Jul 01	13:16:27	1009	-10915	P	-1.0377	0.9337	64.5S	43.0W	0		
07452	-28	1135 Jul 12	20:28:48	941	-10692	T	-0.9676	1.0179	51.5S	147.8W	14	248	01m25s
07497	-27	1153 Jul 23	03:42:38	877	-10469	T	-0.8994	1.0161	41.6S	105.0E	26	125	01m22s
07542	-26	1171 Aug 03	11:00:18	816	-10246	T	-0.8350	1.0126	36.2S	4.6W	33	77	01m06s
07588	-25	1189 Aug 13	18:22:08	760	-10023	H	-0.7744	1.0082	33.2S	115.4W	39	43	00m43s
07633	-24	1207 Aug 25	01:48:51	707	-9800	H	-0.7186	1.0031	31.9S	132.6E	44	15	00m16s
07679	-23	1225 Sep 04	09:21:58	658	-9577	A	-0.6686	0.9977	31.9S	19.0E	48	11	00m12s

07724	-22	1243	Sep 15	17:01:45	612	-9354	A	-0.6249	0.9920	33.0S	96.0W	51	35	00m42s
07768	-21	1261	Sep 26	00:48:31	569	-9131	A	-0.5878	0.9863	35.0S	147.3E	54	59	01m12s
07812	-20	1279	Oct 07	08:42:21	528	-8908	A	-0.5573	0.9805	37.6S	29.1E	56	82	01m42s
07855	-19	1297	Oct 17	16:42:50	491	-8685	A	-0.5330	0.9751	40.6S	90.4W	58	104	02m11s
07897	-18	1315	Oct 29	00:49:59	456	-8462	A	-0.5150	0.9698	43.8S	149.1E	59	126	02m40s
07939	-17	1333	Nov 08	09:01:11	423	-8239	A	-0.5012	0.9651	46.8S	28.4E	60	145	03m06s
07980	-16	1351	Nov 19	17:18:04	392	-8016	A	-0.4929	0.9608	49.4S	92.7W	60	163	03m32s
08021	-15	1369	Nov 30	01:36:58	363	-7793	A	-0.4873	0.9570	51.4S	146.6E	61	179	03m55s
08062	-14	1387	Dec 11	09:58:30	335	-7570	A	-0.4843	0.9539	52.4S	26.1E	61	193	04m16s
08102	-13	1405	Dec 21	18:17:58	309	-7347	A	-0.4803	0.9514	52.2S	93.7W	61	204	04m35s
08142	-12	1424	Jan 02	02:37:16	285	-7124	A	-0.4768	0.9495	50.7S	146.2E	61	211	04m52s
08182	-11	1442	Jan 12	10:51:53	262	-6901	A	-0.4704	0.9481	48.0S	26.1E	62	216	05m06s
08222	-10	1460	Jan 23	19:01:52	240	-6678	A	-0.4607	0.9474	44.2S	94.0W	62	218	05m19s
08262	-09	1478	Feb 03	03:04:10	219	-6455	A	-0.4455	0.9472	39.5S	146.4E	63	217	05m31s
08302	-08	1496	Feb 14	10:59:31	200	-6232	A	-0.4249	0.9474	34.2S	27.5E	65	213	05m41s
08344	-07	1514	Feb 24	18:45:30	182	-6009	A	-0.3974	0.9479	28.2S	90.0W	66	208	05m51s
08386	-06	1532	Mar 07	02:21:39	165	-5786	A	-0.3625	0.9488	21.8S	154.3E	69	201	05m59s
08427	-05	1550	Mar 18	09:47:48	150	-5563	A	-0.3200	0.9497	15.1S	40.8E	71	194	06m05s
08468	-04	1568	Mar 28	17:04:21	136	-5340	A	-0.2701	0.9507	8.1S	70.5W	74	187	06m10s
08509	-03	1586	Apr 19	00:10:09	125	-5117	A	-0.2120	0.9517	0.9S	179.1W	78	181	06m12s
08550	-02	1604	Apr 29	07:07:21	114	-4894	A	-0.1473	0.9525	6.3N	74.8E	82	176	06m12s
08592	-01	1622	May 10	13:55:35	91	-4671	Am	-0.0757	0.9531	13.5N	28.8W	86	172	06m07s
08637	00	1640	May 20	20:37:52	63	-4448	A	0.0002	0.9533	20.4N	130.2W	90	171	06m00s
08682	01	1658	Jun 01	03:11:38	37	-4225	A	0.0828	0.9532	27.0N	131.3E	85	172	05m49s
08728	02	1676	Jun 11	09:42:37	17	-4002	A	0.1673	0.9527	33.0N	34.6E	80	176	05m38s
08773	03	1694	Jun 22	16:08:45	8	-3779	A	0.2556	0.9517	38.4N	59.7W	75	183	05m27s
08818	04	1712	Jul 03	22:34:57	9	-3556	A	0.3434	0.9503	42.8N	152.7W	70	194	05m18s
08864	05	1730	Jul 15	04:59:09	11	-3333	A	0.4325	0.9484	46.3N	115.9E	64	210	05m13s

08910	06	1748	Jul 25	11:27:02	13	-3110	A	0.5183	0.9461	48.7N	24.5E	59	231	05m12s
08955	07	1766	Aug 05	17:56:58	15	-2887	A	0.6023	0.9433	50.2N	67.0W	53	260	05m15s
09001	08	1784	Aug 16	00:31:53	17	-2664	A	0.6819	0.9402	50.9N	159.8W	47	299	05m23s
09046	09	1802	Aug 28	07:12:00	13	-2441	A	0.7569	0.9367	51.3N	105.7E	41	354	05m35s
09091	10	1820	Sep 07	13:59:58	11	-2218	A	0.8251	0.9329	51.6N	8.7E	34	432	05m49s
09135	11	1838	Sep 18	20:55:56	5	-1995	A	0.8868	0.9289	52.4N	90.6W	27	562	06m06s
09178	12	1856	Sep 29	03:59:44	7	-1772	A	0.9420	0.9246	54.3N	169.1E	19	831	06m21s
09221	13	1874	Oct 10	11:13:33	-3	-1549	An	0.9889	0.9193	58.6N	72.0E	7	-	06m28s
09263	14	1892	Oct 20	18:36:06	-6	-1326	P	1.0286	0.9054	61.4N	33.3W	0		
09305	15	1910	Nov 02	02:08:32	12	-1103	P	1.0603	0.8515	61.9N	155.1W	0		
09348	16	1928	Nov 12	09:48:24	24	-880	P	1.0861	0.8078	62.6N	81.1E	0		
09391	17	1946	Nov 23	17:37:12	28	-657	P	1.1050	0.7758	63.4N	45.3W	0		
09431	18	1964	Dec 04	01:31:54	36	-434	P	1.1193	0.7518	64.3N	173.3W	0		
09471	19	1982	Dec 15	09:32:09	53	-211	P	1.1293	0.7350	65.3N	56.9E	0		
09510	20	2000	Dec 25	17:35:57	64	12	P	1.1367	0.7228	66.3N	74.1W	0		
09550	21	2019	Jan 06	01:42:38	71	235	P	1.1417	0.7145	67.4N	153.6E	0		
09590	22	2037	Jan 16	09:48:55	82	458	P	1.1477	0.7049	68.5N	20.8E	0		
09630	23	2055	Jan 27	17:54:05	103	681	P	1.1550	0.6932	69.5N	112.2W	0		
09671	24	2073	Feb 07	01:55:59	142	904	P	1.1651	0.6768	70.5N	114.9E	0		
09712	25	2091	Feb 18	09:54:40	182	1127	P	1.1779	0.6558	71.2N	17.8W	0		
09753	26	2109	Mar 01	17:45:53	224	1350	P	1.1972	0.6238	71.8N	149.1W	0		
09794	27	2127	Mar 13	01:32:03	269	1573	P	1.2208	0.5841	72.1N	80.4E	0		
09835	28	2145	Mar 23	09:09:38	315	1796	P	1.2519	0.5311	72.1N	48.0W	0		
09877	29	2163	Apr 03	16:41:51	356	2019	P	1.2876	0.4698	71.9N	175.0W	0		
09920	30	2181	Apr 14	00:04:05	397	2242	P	1.3318	0.3931	71.5N	60.8E	0		
09964	31	2199	Apr 25	07:21:51	440	2465	P	1.3799	0.3085	70.8N	61.7W	0		
10008	32	2217	May 06	14:31:15	484	2688	P	1.4355	0.2100	70.0N	178.5E	0		
10052	33	2235	May 17	21:36:41	531	2911	Pe	1.4946	0.1044	69.1N	60.3E	0		

SAROS SERIES

123

Saros series 123 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

07299	-33	1074	Apr 29	01:23:46	1190	-11449	Pb	1.4965	0.1151	62.2N	39.8E	0	
07343	-32	1092	May 09	07:55:04	1111	-11226	P	1.4182	0.2481	62.8N	67.4W	0	
07389	-31	1110	May 20	14:22:27	1037	-11003	P	1.3362	0.3876	63.6N	173.8W	0	
07434	-30	1128	May 30	20:45:57	967	-10780	P	1.2507	0.5336	64.5N	80.5E	0	
07479	-29	1146	Jun 11	03:09:15	901	-10557	P	1.1642	0.6817	65.4N	25.5W	0	
07524	-28	1164	Jun 21	09:30:36	840	-10334	P	1.0754	0.8336	66.4N	131.2W	0	
07570	-27	1182	Jul 02	15:55:48	782	-10111	An	0.9892	0.9368	74.6N	120.1E	7	- 03m50s
07615	-26	1200	Jul 12	22:22:50	728	-9888	A	0.9039	0.9409	83.6N	101.5W	25	521 04m12s
07660	-25	1218	Jul 24	04:55:35	677	-9665	A	0.8225	0.9425	72.3N	135.3E	34	376 04m34s
07706	-24	1236	Aug 03	11:33:03	629	-9442	A	0.7441	0.9432	61.9N	29.8E	42	314 04m57s

07751	-23	1254	Aug 14	18:19:43	585	-9219	A	0.6726	0.9433	52.6N	75.8W	47	282	05m23s
07795	-22	1272	Aug 25	01:13:45	544	-8996	A	0.6067	0.9430	43.9N	177.3E	52	264	05m50s
07838	-21	1290	Sep 05	08:17:10	505	-8773	A	0.5480	0.9424	35.8N	68.4E	57	253	06m17s
07880	-20	1308	Sep 15	15:30:02	469	-8550	A	0.4964	0.9417	28.2N	42.6W	60	247	06m43s
07922	-19	1326	Sep 26	22:53:53	435	-8327	A	0.4531	0.9409	21.3N	156.1W	63	244	07m07s
07963	-18	1344	Oct 07	06:26:57	404	-8104	A	0.4170	0.9402	15.1N	88.4E	65	242	07m29s
08005	-17	1362	Oct 18	14:09:27	374	-7881	A	0.3879	0.9397	9.6N	29.1W	67	241	07m48s
08046	-16	1380	Oct 28	22:00:47	346	-7658	A	0.3656	0.9395	4.9N	148.4W	69	240	08m01s
08087	-15	1398	Nov 09	06:00:34	319	-7435	A	0.3493	0.9397	1.1N	90.5E	70	238	08m07s
08127	-14	1416	Nov 19	14:05:55	294	-7212	A	0.3370	0.9404	1.8S	31.6W	70	234	08m05s
08167	-13	1434	Nov 30	22:17:34	271	-6989	A	0.3290	0.9416	3.7S	155.0W	71	229	07m54s
08207	-12	1452	Dec 11	06:31:53	248	-6766	A	0.3224	0.9434	4.8S	81.1E	71	221	07m32s
08246	-11	1470	Dec 22	14:49:05	227	-6543	A	0.3175	0.9458	4.9S	43.4W	72	210	07m02s
08286	-10	1489	Jan 01	23:04:27	207	-6320	A	0.3102	0.9489	4.3S	167.5W	72	197	06m24s
08327	-09	1507	Jan 13	07:20:10	189	-6097	A	0.3024	0.9526	3.0S	68.3E	72	181	05m42s
08369	-08	1525	Jan 23	15:31:21	171	-5874	A	0.2897	0.9569	1.2S	54.8W	73	163	04m58s
08411	-07	1543	Feb 03	23:38:52	155	-5651	A	0.2735	0.9617	1.0N	177.0W	74	143	04m14s
08452	-06	1561	Feb 14	07:39:21	141	-5428	A	0.2507	0.9670	3.4N	62.6E	75	122	03m30s
08493	-05	1579	Feb 25	15:34:47	129	-5205	A	0.2229	0.9728	6.0N	56.4W	77	100	02m48s
08534	-04	1597	Mar 17	23:22:39	120	-4982	A	0.1878	0.9788	8.4N	173.3W	79	77	02m08s
08575	-03	1615	Mar 29	07:03:24	100	-4759	A	0.1461	0.9851	10.7N	71.7E	82	53	01m28s
08619	-02	1633	Apr 08	14:37:06	74	-4536	A	0.0976	0.9913	12.4N	41.2W	84	31	00m51s
08664	-01	1651	Apr 19	22:04:37	47	-4313	A	0.0433	0.9976	13.7N	152.4W	87	8	00m14s
08710	00	1669	Apr 30	05:26:07	24	-4090	H	-0.0171	1.0036	14.1N	98.2E	89	13	00m22s
08755	01	1687	May 11	12:42:28	10	-3867	H	-0.0828	1.0094	13.6N	9.9W	85	33	00m57s
08800	02	1705	May 22	19:55:06	9	-3644	Hm	-0.1525	1.0147	12.2N	117.0W	81	51	01m32s
08845	03	1723	Jun 03	03:05:13	10	-3421	T	-0.2251	1.0196	9.6N	136.1E	77	69	02m05s
08891	04	1741	Jun 13	10:12:48	12	-3198	T	-0.3007	1.0239	6.0N	29.4E	73	85	02m35s

08937	05	1759	Jun 24	17:20:59	14	-2975	T	-0.3768	1.0275	1.4N	78.1W	68	101	02m59s
08983	06	1777	Jul 05	00:29:29	17	-2752	T	-0.4531	1.0305	4.2S	173.7E	63	115	03m17s
09029	07	1795	Jul 16	07:41:36	15	-2529	T	-0.5274	1.0327	10.4S	63.8E	58	130	03m26s
09074	08	1813	Jul 27	14:55:35	12	-2306	T	-0.6006	1.0341	17.4S	47.4W	53	144	03m27s
09119	09	1831	Aug 07	22:15:59	7	-2083	T	-0.6691	1.0349	24.9S	160.9W	48	158	03m20s
09163	10	1849	Aug 18	05:40:49	7	-1860	T	-0.7343	1.0349	32.9S	83.5E	43	172	03m07s
09205	11	1867	Aug 29	13:13:07	3	-1637	T	-0.7940	1.0344	41.1S	34.9W	37	189	02m51s
09247	12	1885	Sep 08	20:51:52	-6	-1414	T	-0.8489	1.0332	49.6S	156.5W	32	211	02m31s
09289	13	1903	Sep 21	04:39:52	2	-1191	T	-0.8967	1.0316	58.0S	77.2E	26	241	02m12s
09331	14	1921	Oct 01	12:35:58	22	-968	T	-0.9383	1.0293	66.1S	56.1W	20	291	01m52s
09374	15	1939	Oct 12	20:40:23	24	-745	T	-0.9737	1.0266	72.8S	155.1E	12	418	01m32s
09415	16	1957	Oct 23	04:54:02	32	-522	T	-1.0022	1.0013	71.2S	23.1W	0		
09455	17	1975	Nov 03	13:15:54	46	-299	P	-1.0248	0.9588	70.4S	161.7W	0		
09494	18	1993	Nov 13	21:45:51	60	-76	P	-1.0411	0.9280	69.6S	58.3E	0		
09534	19	2011	Nov 25	06:21:24	68	147	P	-1.0536	0.9047	68.6S	82.4W	0		
09574	20	2029	Dec 05	15:03:58	77	370	P	-1.0609	0.8911	67.5S	135.7E	0		
09614	21	2047	Dec 16	23:50:12	91	593	P	-1.0661	0.8816	66.4S	6.6W	0		
09655	22	2065	Dec 27	08:39:56	126	816	P	-1.0688	0.8769	65.4S	149.2W	0		
09696	23	2084	Jan 07	17:30:24	166	1039	P	-1.0715	0.8723	64.4S	68.5E	0		
09737	24	2102	Jan 19	02:21:30	207	1262	P	-1.0741	0.8682	63.5S	73.6W	0		
09778	25	2120	Jan 30	11:09:56	251	1485	P	-1.0792	0.8594	62.7S	145.3E	0		
09819	26	2138	Feb 09	19:55:23	297	1708	P	-1.0872	0.8453	62.1S	5.1E	0		
09861	27	2156	Feb 21	04:36:02	341	1931	P	-1.0995	0.8230	61.6S	133.7W	0		
09903	28	2174	Mar 03	13:11:54	381	2154	P	-1.1162	0.7924	61.3S	88.7E	0		
09947	29	2192	Mar 13	21:40:00	423	2377	P	-1.1395	0.7491	61.1S	46.8W	0		
09992	30	2210	Mar 26	06:01:57	466	2600	P	-1.1680	0.6954	61.1S	179.2E	0		
10035	31	2228	Apr 05	14:15:36	512	2823	P	-1.2036	0.6279	61.3S	47.3E	0		
10079	32	2246	Apr 16	22:23:24	560	3046	P	-1.2445	0.5498	61.6S	83.2W	0		

10124 33 2264 Apr 27 06:21:41 611 3269 P -1.2931 0.4564 62.1S 148.5E 0
10169 34 2282 May 08 14:15:16 663 3492 P -1.3458 0.3545 62.7S 21.3E 0
10215 35 2300 May 19 22:00:39 717 3715 P -1.4049 0.2399 63.4S 104.1W 0
10260 36 2318 May 31 05:42:33 773 3938 Pe -1.4670 0.1192 64.2S 131.2E 0

SAROS SERIES

124

Saros series 124 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

07239 -37 1049 Mar 06 16:00:57 1307 -11760 Pb -1.5374 0.0138 71.9S 47.7E 0
07283 -36 1067 Mar 17 23:50:58 1222 -11537 P -1.4938 0.0904 71.9S 84.3W 0
07327 -35 1085 Mar 28 07:34:42 1142 -11314 P -1.4444 0.1790 71.8S 145.3E 0
07372 -34 1103 Apr 08 15:12:10 1066 -11091 P -1.3890 0.2797 71.4S 16.9E 0
07417 -33 1121 Apr 18 22:43:16 994 -10868 P -1.3276 0.3929 70.7S 109.5W 0
07462 -32 1139 Apr 30 06:10:02 927 -10645 P -1.2616 0.5159 70.0S 125.8E 0

07507 -31 1157 May 10 13:32:54 864 -10422 P -1.1912 0.6486 69.1S 2.6E 0

07552 -30 1175 May 21 20:53:01 804 -10199 P -1.1176 0.7882 68.1S 119.3W 0

07598 -29 1193 Jun 01 04:11:37 748 -9976 P -1.0418 0.9331 67.1S 119.8E 0

07643 -28 1211 Jun 12 11:30:10 696 -9753 T -0.9649 1.0434 51.7S 3.4E 15 569 03m20s

07689 -27 1229 Jun 22 18:50:32 648 -9530 T -0.8886 1.0496 39.0S 109.7W 27 360 04m10s

07734 -26 1247 Jul 04 02:11:47 602 -9307 T -0.8122 1.0539 30.9S 137.9E 35 304 04m42s

07778 -25 1265 Jul 14 09:37:31 560 -9084 T -0.7388 1.0568 25.3S 25.1E 42 275 04m59s

07821 -24 1283 Jul 25 17:06:40 520 -8861 T -0.6677 1.0587 21.4S 88.1W 48 256 05m07s

07864 -23 1301 Aug 05 00:42:42 483 -8638 T -0.6019 1.0597 19.1S 157.3E 53 242 05m07s

07906 -22 1319 Aug 16 08:23:22 448 -8415 T -0.5396 1.0600 18.0S 41.9E 57 231 05m01s

07947 -21 1337 Aug 26 16:12:58 416 -8192 T -0.4842 1.0596 18.1S 75.7W 61 221 04m53s

07988 -20 1355 Sep 07 00:09:07 385 -7969 T -0.4340 1.0586 19.2S 165.3E 64 212 04m43s

08029 -19 1373 Sep 17 08:14:16 357 -7746 T -0.3912 1.0573 21.0S 44.0E 67 204 04m33s

08071 -18 1391 Sep 28 16:26:31 330 -7523 T -0.3541 1.0557 23.4S 78.9W 69 195 04m23s

08111 -17 1409 Oct 09 00:48:09 304 -7300 T -0.3249 1.0539 26.2S 156.1E 71 188 04m15s

08151 -16 1427 Oct 20 09:16:36 280 -7077 T -0.3009 1.0521 29.1S 29.6E 72 180 04m07s

08191 -15 1445 Oct 30 17:52:12 257 -6854 T -0.2828 1.0505 32.0S 98.2W 73 174 04m01s

08231 -14 1463 Nov 11 02:33:46 235 -6631 T -0.2696 1.0490 34.5S 133.0E 74 169 03m56s

08271 -13 1481 Nov 21 11:21:13 215 -6408 T -0.2617 1.0479 36.6S 3.3E 75 165 03m53s

08311 -12 1499 Dec 02 20:11:32 196 -6185 T -0.2557 1.0471 37.9S 126.7W 75 162 03m51s

08353 -11 1517 Dec 13 05:04:13 178 -5962 T -0.2520 1.0468 38.2S 103.0E 75 161 03m52s

08394 -10 1535 Dec 24 13:56:57 161 -5739 T -0.2482 1.0469 37.5S 27.4W 75 161 03m55s

08435 -09 1554 Jan 03 22:49:38 147 -5516 T -0.2447 1.0474 35.8S 158.1W 76 163 04m00s

08476 -08 1572 Jan 15 07:38:12 134 -5293 T -0.2380 1.0485 33.0S 71.6E 76 166 04m07s

08517 -07 1590 Feb 04 16:24:05 123 -5070 T -0.2293 1.0498 29.3S 58.8W 77 170 04m17s

08558 -06 1608 Feb 16 01:03:28 110 -4847 T -0.2154 1.0515 24.8S 171.7E 77 175 04m29s

08602 -05 1626 Feb 26 09:37:27 85 -4624 T -0.1971 1.0535 19.7S 42.7E 79 180 04m42s

08647 -04 1644 Mar 08 18:02:43 58 -4401 T -0.1717 1.0555 14.0S 84.7W 80 186 04m57s

08692	-03	1662	Mar 20	02:21:49	32	-4178	T	-0.1414	1.0576	7.9S	149.1E	82	191	05m11s
08738	-02	1680	Mar 30	10:32:01	14	-3955	T	-0.1039	1.0595	1.5S	24.9E	84	197	05m25s
08783	-01	1698	Apr 10	18:34:26	8	-3732	Tm	-0.0599	1.0613	5.1N	97.3W	87	201	05m36s
08828	00	1716	Apr 22	02:28:33	10	-3509	T	-0.0091	1.0625	11.8N	142.6E	90	205	05m43s
08873	01	1734	May 03	10:15:56	11	-3286	T	0.0472	1.0635	18.4N	24.6E	87	208	05m46s
08919	02	1752	May 13	17:56:29	13	-3063	T	0.1090	1.0637	24.9N	91.1W	84	210	05m42s
08964	03	1770	May 25	01:30:12	16	-2840	T	0.1760	1.0634	31.2N	155.6E	80	211	05m31s
09010	04	1788	Jun 04	08:59:31	16	-2617	T	0.2465	1.0623	37.0N	44.4E	76	211	05m15s
09056	05	1806	Jun 16	16:24:27	12	-2394	T	0.3204	1.0604	42.2N	64.6W	71	210	04m55s
09101	06	1824	Jun 26	23:46:33	10	-2171	T	0.3960	1.0578	46.6N	171.4W	66	207	04m31s
09145	07	1842	Jul 08	07:06:27	6	-1948	T	0.4727	1.0543	50.1N	83.6E	62	204	04m05s
09188	08	1860	Jul 18	14:26:24	8	-1725	T	0.5487	1.0500	52.5N	20.3W	56	198	03m39s
09230	09	1878	Jul 29	21:47:18	-5	-1502	T	0.6232	1.0450	53.8N	124.0W	51	191	03m11s
09272	10	1896	Aug 09	05:09:00	-6	-1279	T	0.6964	1.0392	54.4N	132.2E	46	182	02m43s
09314	11	1914	Aug 21	12:34:27	17	-1056	T	0.7655	1.0328	54.5N	27.1E	40	170	02m14s
09357	12	1932	Aug 31	20:03:41	24	-833	T	0.8307	1.0257	54.5N	79.5W	34	155	01m45s
09399	13	1950	Sep 12	03:38:47	29	-610	T	0.8903	1.0182	54.8N	172.3E	27	134	01m14s
09439	14	1968	Sep 22	11:18:46	39	-387	T	0.9451	1.0099	56.2N	64.0E	19	104	00m40s
09479	15	1986	Oct 03	19:06:15	55	-164	H	0.9931	1.0000	59.9N	37.1W	5	1	00m00s
09518	16	2004	Oct 14	03:00:23	65	59	P	1.0348	0.9282	61.2N	153.7W	0		
09558	17	2022	Oct 25	11:01:20	73	282	P	1.0701	0.8619	61.6N	77.4E	0		
09598	18	2040	Nov 04	19:09:02	85	505	P	1.0993	0.8074	62.2N	53.4W	0		
09639	19	2058	Nov 16	03:23:07	111	728	P	1.1224	0.7644	62.9N	174.2E	0		
09680	20	2076	Nov 26	11:43:01	150	951	P	1.1401	0.7315	63.7N	40.1E	0		
09721	21	2094	Dec 07	20:05:56	191	1174	P	1.1547	0.7046	64.7N	95.0W	0		
09762	22	2112	Dec 19	04:33:16	233	1397	P	1.1648	0.6858	65.7N	128.4E	0		
09802	23	2130	Dec 30	13:01:34	278	1620	P	1.1730	0.6708	66.8N	8.8W	0		
09844	24	2149	Jan 09	21:30:38	325	1843	P	1.1802	0.6575	67.9N	146.7W	0		

09886	25	2167	Jan 21	05:56:25	365	2066	P	1.1892	0.6413	68.9N	75.5E	0
09930	26	2185	Jan 31	14:20:20	406	2289	P	1.1991	0.6238	69.9N	62.4W	0
09974	27	2203	Feb 12	22:38:35	449	2512	P	1.2128	0.5998	70.8N	160.4E	0
10018	28	2221	Feb 23	06:50:48	494	2735	P	1.2305	0.5688	71.5N	24.2E	0
10062	29	2239	Mar 06	14:54:58	541	2958	P	1.2541	0.5278	72.0N	110.6W	0
10106	30	2257	Mar 16	22:51:29	590	3181	P	1.2833	0.4770	72.2N	116.2E	0
10151	31	2275	Mar 28	06:37:50	642	3404	P	1.3199	0.4133	72.2N	14.4W	0
10197	32	2293	Apr 07	14:14:55	695	3627	P	1.3632	0.3380	71.8N	142.5W	0
10242	33	2311	Apr 19	21:41:49	751	3850	P	1.4139	0.2499	71.3N	92.3E	0
10287	34	2329	Apr 30	04:59:58	808	4073	P	1.4705	0.1514	70.6N	30.1W	0
10333	35	2347	May 11	12:07:08	868	4296	Pe	1.5351	0.0391	69.7N	149.1W	0

SAROS SERIES

125

Saros series 125 contains 73 solar eclipses.

[illegible]

ECLIPSE

07265	-39	1060	Feb 04	21:21:56	1255	-11625	Pb	1.5334	0.0080	62.1N	167.8E	0
07309	-38	1078	Feb 15	05:47:57	1173	-11402	P	1.5158	0.0407	61.6N	32.0E	0
07353	-37	1096	Feb 26	14:07:35	1095	-11179	P	1.4936	0.0820	61.3N	102.0W	0
07399	-36	1114	Mar 08	22:17:27	1022	-10956	P	1.4643	0.1367	61.1N	126.5E	0
07444	-35	1132	Mar 19	06:19:27	953	-10733	P	1.4291	0.2024	61.1N	3.1W	0
07489	-34	1150	Mar 30	14:11:34	888	-10510	P	1.3867	0.2819	61.2N	130.1W	0
07534	-33	1168	Apr 09	21:56:35	827	-10287	P	1.3390	0.3713	61.5N	104.6E	0
07580	-32	1186	Apr 21	05:32:46	770	-10064	P	1.2847	0.4732	62.0N	18.6W	0
07625	-31	1204	May 01	13:01:38	717	-9841	P	1.2250	0.5852	62.5N	140.1W	0
07671	-30	1222	May 12	20:24:03	667	-9618	P	1.1607	0.7054	63.2N	99.9E	0
07716	-29	1240	May 23	03:41:19	620	-9395	P	1.0929	0.8316	64.0N	19.0W	0
07761	-28	1258	Jun 03	10:54:19	576	-9172	P	1.0220	0.9628	64.9N	137.1W	0
07805	-27	1276	Jun 13	18:03:40	536	-8949	T	0.9490	1.0202	82.2N	135.2E	18 226 01m07s
07848	-26	1294	Jun 25	01:11:53	498	-8726	T	0.8757	1.0195	84.5N	153.7E	28 140 01m11s
07890	-25	1312	Jul 05	08:19:23	462	-8503	T	0.8028	1.0171	75.4N	68.1E	36 99 01m08s
07931	-24	1330	Jul 16	15:26:57	429	-8280	T	0.7307	1.0139	66.5N	35.7W	43 70 01m00s
07972	-23	1348	Jul 26	22:37:09	397	-8057	H	0.6616	1.0098	58.0N	143.3W	48 45 00m46s
08013	-22	1366	Aug 07	05:50:23	368	-7834	H	0.5958	1.0051	49.7N	107.0E	53 22 00m26s
08054	-21	1384	Aug 17	13:09:06	340	-7611	A	0.5354	0.9999	41.7N	4.5W	57 1 00m01s
08095	-20	1402	Aug 28	20:31:39	314	-7388	A	0.4790	0.9943	34.0N	117.4W	61 23 00m33s
08135	-19	1420	Sep 08	04:02:09	289	-7165	A	0.4301	0.9885	26.7N	127.7E	64 45 01m10s
08175	-18	1438	Sep 19	11:38:08	266	-6942	A	0.3864	0.9826	19.8N	11.4E	67 66 01m51s
08215	-17	1456	Sep 29	19:22:26	244	-6719	A	0.3503	0.9768	13.5N	106.7W	69 88 02m36s
08255	-16	1474	Oct 11	03:12:17	223	-6496	A	0.3195	0.9711	7.8N	134.1E	71 109 03m22s
08295	-15	1492	Oct 21	11:10:36	203	-6273	A	0.2964	0.9657	2.8N	13.1E	73 129 04m08s
08336	-14	1510	Nov 01	19:13:50	185	-6050	A	0.2781	0.9607	1.5S	108.7W	74 148 04m54s

08378	-13	1528	Nov 12	03:22:58	168	-5827	A	0.2653	0.9562	4.9S	128.4E	75	166	05m36s
08419	-12	1546	Nov 23	11:35:42	152	-5604	A	0.2561	0.9521	7.3S	4.9E	75	181	06m13s
08460	-11	1564	Dec 03	19:52:06	139	-5381	A	0.2504	0.9487	8.8S	119.2W	76	195	06m42s
08501	-10	1582	Dec 25	04:08:39	127	-5158	A	0.2457	0.9459	9.4S	116.8E	76	206	07m02s
08542	-09	1601	Jan 04	12:24:38	117	-4935	A	0.2410	0.9437	9.1S	7.0W	76	214	07m13s
08584	-08	1619	Jan 15	20:38:07	95	-4712	A	0.2349	0.9422	8.1S	130.4W	76	220	07m16s
08628	-07	1637	Jan 26	04:48:32	68	-4489	A	0.2265	0.9412	6.4S	107.0E	77	223	07m12s
08674	-06	1655	Feb 06	12:51:54	42	-4266	A	0.2129	0.9408	4.3S	14.0W	78	224	07m03s
08720	-05	1673	Feb 16	20:49:18	20	-4043	A	0.1950	0.9409	1.8S	133.5W	79	223	06m52s
08765	-04	1691	Feb 28	04:37:41	9	-3820	A	0.1701	0.9414	0.8N	109.3E	80	220	06m40s
08810	-03	1709	Mar 11	12:18:35	9	-3597	Am	0.1394	0.9422	3.4N	5.9W	82	216	06m29s
08855	-02	1727	Mar 22	19:47:55	10	-3374	A	0.0996	0.9432	5.7N	118.0W	84	211	06m20s
08901	-01	1745	Apr 02	03:09:18	12	-3151	A	0.0536	0.9444	7.7N	132.2E	87	205	06m13s
08946	00	1763	Apr 13	10:19:31	15	-2928	A	-0.0010	0.9455	9.0N	25.3E	90	201	06m11s
08992	01	1781	Apr 23	17:21:26	17	-2705	A	-0.0620	0.9467	9.7N	79.2W	87	197	06m13s
09037	02	1799	May 05	00:13:08	14	-2482	A	-0.1310	0.9476	9.3N	178.9E	83	194	06m20s
09082	03	1817	May 16	06:58:14	12	-2259	A	-0.2049	0.9483	7.9N	78.5E	78	194	06m30s
09127	04	1835	May 27	13:35:42	6	-2036	A	-0.2846	0.9486	5.3N	20.2W	73	196	06m44s
09171	05	1853	Jun 06	20:07:21	7	-1813	A	-0.3686	0.9486	1.5N	117.9W	68	203	06m59s
09214	06	1871	Jun 18	02:35:02	-1	-1590	A	-0.4550	0.9481	3.5S	144.7E	63	214	07m14s
09256	07	1889	Jun 28	09:00:00	-6	-1367	A	-0.5431	0.9471	9.6S	47.3E	57	232	07m22s
09298	08	1907	Jul 10	15:24:32	7	-1144	A	-0.6313	0.9456	16.9S	50.9W	51	258	07m23s
09340	09	1925	Jul 20	21:48:42	24	-921	A	-0.7193	0.9436	25.3S	150.0W	44	300	07m15s
09383	10	1943	Aug 01	04:16:13	26	-698	A	-0.8041	0.9409	34.8S	108.6E	36	367	06m59s
09423	11	1961	Aug 11	10:46:47	34	-475	A	-0.8859	0.9375	45.8S	4.0E	27	499	06m35s
09463	12	1979	Aug 22	17:22:38	50	-252	A	-0.9632	0.9329	59.6S	108.5W	15	953	06m03s
09502	13	1997	Sep 02	00:04:48	63	-29	P	-1.0352	0.8988	71.8S	114.3E	0		
09542	14	2015	Sep 13	06:55:19	69	194	P	-1.1004	0.7875	72.1S	2.3W	0		

09582	15	2033 Sep 23	13:54:31	80	417	P	-1.1583	0.6890	72.2S	121.2W	0
09622	16	2051 Oct 04	21:02:14	96	640	P	-1.2094	0.6024	72.0S	117.7E	0
09664	17	2069 Oct 15	04:19:56	134	863	P	-1.2524	0.5298	71.6S	5.5W	0
09705	18	2087 Oct 26	11:46:57	174	1086	P	-1.2882	0.4696	71.0S	130.5W	0
09746	19	2105 Nov 06	19:23:02	216	1309	P	-1.3168	0.4217	70.2S	102.7E	0
09787	20	2123 Nov 18	03:07:26	260	1532	P	-1.3389	0.3848	69.3S	25.5W	0
09828	21	2141 Nov 28	10:59:33	307	1755	P	-1.3552	0.3577	68.2S	155.0W	0
09870	22	2159 Dec 09	18:58:33	349	1978	P	-1.3663	0.3392	67.2S	74.4E	0
09913	23	2177 Dec 20	03:01:35	389	2201	P	-1.3747	0.3251	66.1S	56.8W	0
09957	24	2195 Dec 31	11:09:22	432	2424	P	-1.3797	0.3166	65.1S	171.4E	0
10001	25	2214 Jan 11	19:17:52	476	2647	P	-1.3848	0.3078	64.1S	39.7E	0
10045	26	2232 Jan 23	03:27:39	522	2870	P	-1.3891	0.3001	63.3S	91.9W	0
10089	27	2250 Feb 02	11:34:07	571	3093	P	-1.3969	0.2864	62.5S	137.6E	0
10134	28	2268 Feb 13	19:39:32	621	3316	P	-1.4059	0.2703	61.9S	7.5E	0
10179	29	2286 Feb 24	03:39:23	674	3539	P	-1.4203	0.2448	61.5S	121.0W	0
10224	30	2304 Mar 07	11:34:24	729	3762	P	-1.4389	0.2118	61.2S	111.8E	0
10269	31	2322 Mar 18	19:21:51	785	3985	P	-1.4640	0.1671	61.1S	13.5W	0
10314	32	2340 Mar 29	03:03:37	844	4208	P	-1.4941	0.1131	61.2S	137.3W	0
10360	33	2358 Apr 09	10:37:39	905	4431	Pe	-1.5309	0.0468	61.4S	100.7E	0

SAROS SERIES

126

Saros series 126 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

07562	-32	1179 Mar 10	07:39:51	792	-10152	Pb	-1.5356	0.0536	72.0S	165.4E	0		
07607	-31	1197 Mar 20	14:48:56	737	-9929	P	-1.4880	0.1327	72.0S	43.8E	0		
07652	-30	1215 Mar 31	21:50:41	686	-9706	P	-1.4344	0.2222	71.7S	75.8W	0		
07698	-29	1233 Apr 11	04:41:24	638	-9483	P	-1.3717	0.3278	71.2S	167.7E	0		
07743	-28	1251 Apr 22	11:26:32	593	-9260	P	-1.3041	0.4423	70.5S	53.1E	0		
07787	-27	1269 May 02	18:03:15	551	-9037	P	-1.2291	0.5699	69.7S	58.8W	0		
07830	-26	1287 May 14	00:35:25	512	-8814	P	-1.1500	0.7052	68.8S	169.0W	0		
07873	-25	1305 May 24	07:02:17	476	-8591	P	-1.0658	0.8496	67.8S	82.8E	0		
07915	-24	1323 Jun 04	13:27:55	441	-8368	As	-0.9799	0.9383	56.1S	23.4W	11	-	05m59s
07956	-23	1341 Jun 14	19:52:10	409	-8145	A	-0.8922	0.9433	39.6S	123.3W	27	465	06m25s
07997	-22	1359 Jun 26	02:16:31	379	-7922	A	-0.8038	0.9463	29.9S	138.3E	36	330	06m30s
08038	-21	1377 Jul 06	08:43:28	351	-7699	A	-0.7168	0.9484	22.8S	40.2E	44	269	06m24s
08079	-20	1395 Jul 17	15:14:16	324	-7476	A	-0.6318	0.9497	17.7S	58.2W	51	234	06m12s
08119	-19	1413 Jul 27	21:50:24	299	-7253	A	-0.5506	0.9506	14.1S	157.5W	57	214	05m58s
08159	-18	1431 Aug 08	04:33:00	275	-7030	A	-0.4737	0.9509	12.0S	102.0E	62	201	05m45s
08199	-17	1449 Aug 18	11:24:05	252	-6807	A	-0.4030	0.9509	11.1S	0.5W	66	194	05m35s
08239	-16	1467 Aug 29	18:24:29	231	-6584	A	-0.3391	0.9505	11.3S	105.2W	70	191	05m29s

08279	-15	1485	Sep 09	01:33:06	211	-6361	A	-0.2811	0.9500	12.4S	148.0E	74	190	05m26s
08320	-14	1503	Sep 20	08:52:38	192	-6138	A	-0.2314	0.9494	14.1S	38.5E	77	190	05m27s
08362	-13	1521	Sep 30	16:21:42	174	-5915	A	-0.1892	0.9489	16.2S	73.3W	79	191	05m30s
08403	-12	1539	Oct 12	00:01:45	158	-5692	A	-0.1551	0.9484	18.7S	172.2E	81	192	05m35s
08444	-11	1557	Oct 22	07:49:28	144	-5469	A	-0.1266	0.9482	21.1S	56.0E	83	192	05m40s
08485	-10	1575	Nov 02	15:47:27	131	-5246	A	-0.1061	0.9483	23.5S	62.6W	84	191	05m44s
08526	-09	1593	Nov 22	23:52:06	121	-5023	A	-0.0906	0.9488	25.4S	177.5E	85	189	05m46s
08566	-08	1611	Dec 04	08:03:43	105	-4800	A	-0.0803	0.9498	26.9S	56.0E	85	185	05m44s
08610	-07	1629	Dec 14	16:19:07	79	-4577	A	-0.0725	0.9513	27.6S	66.2W	86	179	05m38s
08655	-06	1647	Dec 26	00:38:35	52	-4354	A	-0.0675	0.9535	27.4S	170.6E	86	170	05m25s
08701	-05	1666	Jan 05	08:58:51	28	-4131	A	-0.0624	0.9562	26.3S	47.1E	86	160	05m07s
08747	-04	1684	Jan 16	17:18:53	12	-3908	A	-0.0565	0.9596	24.2S	76.7W	87	147	04m43s
08792	-03	1702	Jan 28	01:37:10	8	-3685	A	-0.0484	0.9636	21.2S	159.6E	87	132	04m14s
08837	-02	1720	Feb 08	09:52:31	10	-3462	A	-0.0375	0.9681	17.4S	36.1E	88	115	03m40s
08883	-01	1738	Feb 18	18:02:31	11	-3239	A	-0.0211	0.9732	12.8S	86.7W	89	96	03m03s
08929	00	1756	Mar 01	02:07:09	14	-3016	A	0.0006	0.9787	7.5S	151.4E	90	76	02m24s
08974	01	1774	Mar 12	10:05:14	16	-2793	A	0.0284	0.9845	1.7S	30.8E	88	55	01m43s
09020	02	1792	Mar 22	17:57:34	16	-2570	A	0.0618	0.9905	4.5N	88.7W	86	33	01m02s
09065	03	1810	Apr 04	01:41:19	12	-2347	A	0.1031	0.9967	11.1N	153.8E	84	12	00m21s
09110	04	1828	Apr 14	09:19:38	8	-2124	Hm	0.1498	1.0029	17.9N	37.7E	81	10	00m18s
09154	05	1846	Apr 25	16:50:30	6	-1901	H	0.2038	1.0088	24.8N	76.2W	78	31	00m53s
09197	06	1864	May 06	00:16:48	6	-1678	H	0.2622	1.0146	31.6N	171.5E	75	52	01m25s
09239	07	1882	May 17	07:36:27	-5	-1455	T	0.3269	1.0200	38.4N	61.6E	71	72	01m50s
09281	08	1900	May 28	14:53:56	-2	-1232	T	0.3943	1.0249	44.8N	46.5W	67	92	02m10s
09324	09	1918	Jun 08	22:07:43	20	-1009	T	0.4658	1.0292	50.9N	152.0W	62	112	02m23s
09367	10	1936	Jun 19	05:20:31	24	-786	T	0.5389	1.0329	56.1N	104.7E	57	132	02m31s
09408	11	1954	Jun 30	12:32:38	31	-563	T	0.6135	1.0357	60.5N	4.2E	52	153	02m35s
09448	12	1972	Jul 10	19:46:38	43	-340	T	0.6872	1.0379	63.5N	94.2W	46	175	02m36s

09487	13	1990 Jul 22 03:03:07	57	-117	T	0.7597	1.0391	65.2N 168.9E	40	201	02m33s
09526	14	2008 Aug 01 10:22:12	66	106	T	0.8307	1.0394	65.7N 72.3E	34	237	02m27s
09566	15	2026 Aug 12 17:47:06	75	329	T	0.8977	1.0386	65.2N 25.2W	26	294	02m18s
09606	16	2044 Aug 23 01:17:02	88	552	T	0.9613	1.0364	64.3N 120.4W	15	453	02m04s
09647	17	2062 Sep 03 08:54:27	119	775	P	1.0191	0.9749	61.3N 150.3E	0		
09688	18	2080 Sep 13 16:38:09	158	998	P	1.0723	0.8743	61.1N 25.8E	0		
09729	19	2098 Sep 25 00:31:16	199	1221	P	1.1184	0.7871	61.1N 101.0W	0		
09770	20	2116 Oct 06 08:31:51	243	1444	P	1.1589	0.7105	61.2N 130.4E	0		
09811	21	2134 Oct 17 16:40:42	288	1667	P	1.1931	0.6458	61.5N 0.4W	0		
09853	22	2152 Oct 28 00:57:34	334	1890	P	1.2213	0.5926	61.9N 133.3W	0		
09895	23	2170 Nov 08 09:23:07	373	2113	P	1.2426	0.5524	62.5N 91.6E	0		
09939	24	2188 Nov 18 17:55:25	415	2336	P	1.2591	0.5212	63.2N 45.5W	0		
09984	25	2206 Dec 01 02:33:55	458	2559	P	1.2711	0.4985	64.1N 175.7E	0		
10027	26	2224 Dec 11 11:17:51	504	2782	P	1.2791	0.4834	65.0N 35.2E	0		
10071	27	2242 Dec 22 20:06:40	551	3005	P	1.2836	0.4750	66.0N 106.9W	0		
10116	28	2261 Jan 02 04:56:54	601	3228	P	1.2873	0.4679	67.1N 110.2E	0		
10161	29	2279 Jan 13 13:49:06	653	3451	P	1.2899	0.4630	68.2N 33.7W	0		
10207	30	2297 Jan 23 22:39:47	707	3674	P	1.2940	0.4550	69.2N 177.8W	0		
10252	31	2315 Feb 05 07:29:49	763	3897	P	1.2991	0.4453	70.1N 37.6E	0		
10297	32	2333 Feb 15 16:14:20	821	4120	P	1.3087	0.4270	70.9N 106.2W	0		
10343	33	2351 Feb 27 00:56:12	881	4343	P	1.3209	0.4037	71.5N 110.1E	0		
10388	34	2369 Mar 09 09:30:24	943	4566	P	1.3392	0.3686	71.9N 32.2W	0		
10432	35	2387 Mar 20 17:59:08	1007	4789	P	1.3624	0.3241	72.1N 173.3W	0		
10476	36	2405 Mar 31 02:18:52	1073	5012	P	1.3928	0.2654	71.9N 47.9E	0		
10519	37	2423 Apr 11 10:32:41	1142	5235	P	1.4282	0.1970	71.6N 89.1W	0		
10562	38	2441 Apr 21 18:37:49	1212	5458	P	1.4706	0.1149	71.0N 136.4E	0		
10605	39	2459 May 03 02:35:54	1285	5681	Pe	1.5188	0.0214	70.3N 4.3E	0		

SAROS SERIES

127

Saros series 127 contains 82 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

07105	-45	0991	Oct 10	14:31:21	1608	-12470	Pb	1.5370	0.0321	71.5N	28.4E	0	
07147	-44	1009	Oct 20	22:36:10	1509	-12247	P	1.5123	0.0753	70.9N	106.7W	0	
07189	-43	1027	Nov 01	06:48:58	1414	-12024	P	1.4930	0.1088	70.1N	116.7E	0	
07231	-42	1045	Nov 11	15:09:04	1323	-11801	P	1.4792	0.1328	69.1N	21.0W	0	
07275	-41	1063	Nov 22	23:33:39	1238	-11578	P	1.4681	0.1517	68.1N	159.2W	0	
07319	-40	1081	Dec 03	08:03:27	1156	-11355	P	1.4607	0.1642	67.0N	62.0E	0	
07364	-39	1099	Dec 14	16:35:04	1080	-11132	P	1.4537	0.1757	65.9N	76.8W	0	
07409	-38	1117	Dec 25	01:07:37	1007	-10909	P	1.4469	0.1867	64.9N	144.7E	0	
07454	-37	1136	Jan 05	09:38:55	939	-10686	P	1.4383	0.2010	63.9N	6.9E	0	
07499	-36	1154	Jan 15	18:08:17	875	-10463	P	1.4274	0.2192	63.1N	130.1W	0	
07544	-35	1172	Jan 27	02:33:05	815	-10240	P	1.4121	0.2453	62.4N	94.3E	0	

07590	-34	1190	Feb 06	10:53:04	758	-10017	P	1.3921	0.2801	61.8N	39.8W	0
07635	-33	1208	Feb 17	19:06:58	706	-9794	P	1.3664	0.3257	61.3N	172.3W	0
07681	-32	1226	Feb 28	03:15:05	656	-9571	P	1.3351	0.3818	61.0N	56.8E	0
07726	-31	1244	Mar 10	11:14:43	610	-9348	P	1.2963	0.4525	60.9N	72.0W	0
07770	-30	1262	Mar 21	19:08:33	567	-9125	P	1.2522	0.5339	61.0N	160.7E	0
07814	-29	1280	Apr 01	02:54:21	527	-8902	P	1.2008	0.6298	61.2N	35.4E	0
07857	-28	1298	Apr 12	10:35:28	490	-8679	P	1.1445	0.7357	61.5N	88.9W	0
07899	-27	1316	Apr 22	18:08:42	455	-8456	P	1.0812	0.8560	62.0N	148.8E	0
07940	-26	1334	May 04	01:39:14	422	-8233	P	1.0149	0.9830	62.6N	27.0E	0
07981	-25	1352	May 14	09:04:24	391	-8010	T	0.9437	1.0427	73.6N	48.5W	19 441 02m18s
08022	-24	1370	May 25	16:28:30	362	-7787	T	0.8708	1.0497	76.2N	124.0W	29 338 02m51s
08063	-23	1388	Jun 04	23:49:27	335	-7564	T	0.7944	1.0552	74.2N	156.6E	37 302 03m20s
08103	-22	1406	Jun 16	07:12:01	309	-7341	T	0.7188	1.0596	69.4N	64.4E	44 283 03m48s
08143	-21	1424	Jun 26	14:34:25	284	-7118	T	0.6425	1.0629	63.1N	36.6W	50 270 04m14s
08183	-20	1442	Jul 07	21:59:40	261	-6895	T	0.5679	1.0654	56.2N	143.3W	55 261 04m39s
08223	-19	1460	Jul 18	05:27:53	239	-6672	T	0.4954	1.0669	48.9N	106.4E	60 252 05m00s
08263	-18	1478	Jul 29	13:01:17	219	-6449	T	0.4269	1.0676	41.4N	6.8W	65 244 05m18s
08303	-17	1496	Aug 08	20:40:14	199	-6226	T	0.3626	1.0675	33.9N	122.4W	69 236 05m30s
08345	-16	1514	Aug 20	04:25:15	181	-6003	T	0.3032	1.0667	26.5N	119.9E	72 228 05m38s
08387	-15	1532	Aug 30	12:17:45	164	-5780	T	0.2500	1.0654	19.3N	0.0E	75 221 05m40s
08428	-14	1550	Sep 10	20:17:38	149	-5557	T	0.2029	1.0636	12.4N	121.8W	78 212 05m37s
08469	-13	1568	Sep 21	04:25:02	136	-5334	T	0.1619	1.0615	5.8N	114.6E	81 204 05m32s
08510	-12	1586	Oct 12	12:40:32	125	-5111	T	0.1278	1.0591	0.3S	10.8W	83 196 05m23s
08551	-11	1604	Oct 22	21:03:48	113	-4888	T	0.1000	1.0567	5.9S	137.8W	84 188 05m12s
08593	-10	1622	Nov 03	05:34:48	90	-4665	T	0.0789	1.0544	10.7S	93.7E	86 180 05m01s
08638	-09	1640	Nov 13	14:11:19	63	-4442	T	0.0623	1.0522	14.8S	35.8W	87 173 04m50s
08683	-08	1658	Nov 24	22:54:42	37	-4219	T	0.0513	1.0502	18.0S	166.4W	87 167 04m40s
08729	-07	1676	Dec 05	07:42:08	17	-3996	T	0.0435	1.0486	20.2S	62.5E	88 162 04m30s

08774	-06	1694	Dec 16	16:33:11	8	-3773	T	0.0388	1.0475	21.3S	69.2W	88	158	04m22s
08819	-05	1712	Dec 28	01:24:54	9	-3550	T	0.0346	1.0466	21.5S	159.0E	88	155	04m15s
08865	-04	1731	Jan 08	10:17:44	11	-3327	Tm	0.0313	1.0464	20.7S	27.0E	88	155	04m10s
08911	-03	1749	Jan 18	19:08:56	13	-3104	T	0.0264	1.0465	19.1S	104.9W	89	155	04m07s
08956	-02	1767	Jan 30	03:56:55	15	-2881	T	0.0190	1.0471	16.8S	123.9E	89	157	04m06s
09002	-01	1785	Feb 09	12:40:41	17	-2658	T	0.0080	1.0480	14.1S	6.6W	90	159	04m07s
09047	00	1803	Feb 21	21:18:46	13	-2435	T	-0.0075	1.0492	11.1S	135.9W	90	163	04m09s
09092	01	1821	Mar 04	05:50:13	11	-2212	T	-0.0284	1.0506	8.0S	96.3E	88	168	04m14s
09136	02	1839	Mar 15	14:13:42	5	-1989	T	-0.0558	1.0520	5.1S	29.5W	87	172	04m20s
09179	03	1857	Mar 25	22:29:38	7	-1766	T	-0.0892	1.0534	2.4S	153.4W	85	177	04m28s
09222	04	1875	Apr 06	06:37:26	-3	-1543	T	-0.1292	1.0547	0.2S	84.8E	83	182	04m37s
09264	05	1893	Apr 16	14:36:11	-6	-1320	T	-0.1764	1.0556	1.3N	34.6W	80	186	04m47s
09306	06	1911	Apr 28	22:27:22	12	-1097	T	-0.2294	1.0562	1.9N	151.9W	77	190	04m57s
09349	07	1929	May 09	06:10:34	24	-874	T	-0.2887	1.0562	1.6N	92.7E	73	193	05m07s
09392	08	1947	May 20	13:47:47	28	-651	T	-0.3528	1.0557	0.2N	21.4W	69	196	05m13s
09432	09	1965	May 30	21:17:31	36	-428	T	-0.4225	1.0544	2.5S	133.8W	65	198	05m15s
09472	10	1983	Jun 11	04:43:33	53	-205	T	-0.4947	1.0524	6.2S	114.2E	60	199	05m11s
09511	11	2001	Jun 21	12:04:46	64	18	T	-0.5701	1.0495	11.3S	2.7E	55	200	04m57s
09551	12	2019	Jul 02	19:24:07	71	241	T	-0.6466	1.0459	17.4S	109.0W	50	201	04m33s
09591	13	2037	Jul 13	02:40:36	83	464	T	-0.7246	1.0413	24.8S	139.1E	43	201	03m58s
09631	14	2055	Jul 24	09:57:50	104	687	T	-0.8012	1.0359	33.3S	25.8E	37	202	03m17s
09672	15	2073	Aug 03	17:15:23	143	910	T	-0.8763	1.0294	43.2S	89.4W	28	206	02m29s
09713	16	2091	Aug 15	00:34:43	183	1133	T	-0.9490	1.0216	55.6S	150.5E	18	236	01m38s
09754	17	2109	Aug 26	07:57:26	225	1356	P	-1.0178	0.9670	71.4S	5.1E	0		
09795	18	2127	Sep 06	15:24:17	270	1579	P	-1.0822	0.8458	71.9S	120.1W	0		
09836	19	2145	Sep 16	22:57:10	317	1802	P	-1.1406	0.7368	72.1S	112.8E	0		
09878	20	2163	Sep 28	06:34:34	358	2025	P	-1.1943	0.6377	72.1S	15.6W	0		
09922	21	2181	Oct 08	14:19:36	398	2248	P	-1.2408	0.5529	71.9S	145.8W	0		

09966	22	2199	Oct 19	22:10:26	441	2471	P	-1.2817	0.4790	71.4S	82.9E	0
10010	23	2217	Oct 31	06:08:54	486	2694	P	-1.3157	0.4185	70.7S	49.8W	0
10054	24	2235	Nov 11	14:13:08	532	2917	P	-1.3444	0.3682	69.9S	176.6E	0
10098	25	2253	Nov 21	22:24:38	581	3140	P	-1.3666	0.3297	68.9S	41.9E	0
10143	26	2271	Dec 03	06:40:47	632	3363	P	-1.3843	0.2996	67.8S	93.4W	0
10189	27	2289	Dec 13	15:01:18	685	3586	P	-1.3979	0.2767	66.8S	130.8E	0
10234	28	2307	Dec 25	23:24:23	740	3809	P	-1.4089	0.2585	65.7S	5.1W	0
10279	29	2326	Jan 05	07:49:43	798	4032	P	-1.4177	0.2440	64.7S	141.2W	0
10324	30	2344	Jan 16	16:13:41	857	4255	P	-1.4270	0.2288	63.8S	83.5E	0
10370	31	2362	Jan 27	00:36:00	918	4478	P	-1.4368	0.2125	62.9S	51.1W	0
10414	32	2380	Feb 07	08:54:01	982	4701	P	-1.4496	0.1909	62.2S	175.7E	0
10458	33	2398	Feb 17	17:08:14	1047	4924	P	-1.4648	0.1650	61.7S	43.5E	0
10501	34	2416	Feb 29	01:13:31	1115	5147	P	-1.4865	0.1279	61.3S	86.2W	0
10544	35	2434	Mar 11	09:12:47	1184	5370	P	-1.5121	0.0837	61.1S	145.6E	0
10587	36	2452	Mar 21	17:01:31	1256	5593	Pe	-1.5455	0.0262	61.1S	20.1E	0

SAROS SERIES

128

Saros series 128 contains 73 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST ° km

ECLIPSE

07088	-42	0984	Aug 29	08:35:40	1649	-12558	Pb	-1.5263	0.0085	61.3S	18.5W	0
07130	-41	1002	Sep 09	16:38:28	1548	-12335	P	-1.4840	0.0911	61.1S	148.4W	0
07172	-40	1020	Sep 20	00:47:49	1451	-12112	P	-1.4474	0.1625	61.0S	80.2E	0
07214	-39	1038	Oct 01	09:05:32	1359	-11889	P	-1.4177	0.2202	61.2S	53.4W	0
07257	-38	1056	Oct 11	17:30:26	1271	-11666	P	-1.3942	0.2656	61.4S	171.3E	0
07301	-37	1074	Oct 23	02:01:48	1188	-11443	P	-1.3765	0.2999	61.9S	34.2E	0
07345	-36	1092	Nov 02	10:39:37	1109	-11220	P	-1.3643	0.3234	62.4S	104.5W	0
07391	-35	1110	Nov 13	19:22:20	1035	-10997	P	-1.3568	0.3380	63.2S	115.3E	0
07436	-34	1128	Nov 24	04:09:27	965	-10774	P	-1.3531	0.3453	64.0S	26.2W	0
07481	-33	1146	Dec 05	12:57:34	900	-10551	P	-1.3507	0.3500	65.0S	168.3W	0
07526	-32	1164	Dec 15	21:48:04	838	-10328	P	-1.3507	0.3502	66.0S	48.7E	0
07572	-31	1182	Dec 27	06:37:09	780	-10105	P	-1.3505	0.3506	67.1S	94.4W	0
07617	-30	1201	Jan 06	15:24:30	726	-9882	P	-1.3491	0.3532	68.1S	122.4E	0
07662	-29	1219	Jan 18	00:06:47	676	-9659	P	-1.3445	0.3619	69.1S	20.1W	0
07708	-28	1237	Jan 28	08:44:50	628	-9436	P	-1.3369	0.3759	70.0S	162.2W	0
07753	-27	1255	Feb 08	17:15:43	584	-9213	P	-1.3244	0.3991	70.8S	57.0E	0
07797	-26	1273	Feb 19	01:39:04	543	-8990	P	-1.3066	0.4321	71.4S	82.5W	0
07840	-25	1291	Mar 02	09:53:49	504	-8767	P	-1.2826	0.4766	71.8S	139.8E	0
07882	-24	1309	Mar 12	18:00:25	468	-8544	P	-1.2527	0.5323	71.9S	3.9E	0
07924	-23	1327	Mar 24	01:56:52	435	-8321	P	-1.2152	0.6020	71.8S	129.5W	0
07965	-22	1345	Apr 03	09:44:58	403	-8098	P	-1.1717	0.6830	71.5S	99.5E	0
08006	-21	1363	Apr 14	17:23:47	373	-7875	P	-1.1212	0.7768	70.9S	28.7W	0

08047	-20	1381	Apr 25	00:55:46	345	-7652	P	-1.0659	0.8794	70.2S	154.8W	0
08088	-19	1399	May 06	08:18:28	319	-7429	P	-1.0035	0.9949	69.3S	82.1E	0
08128	-18	1417	May 16	15:36:31	294	-7206	T	-0.9378	1.0179	48.9S	46.3W	20 180 01m30s
08168	-17	1435	May 27	22:47:54	270	-6983	T	-0.8670	1.0184	37.8S	160.2W	30 127 01m43s
08208	-16	1453	Jun 07	05:56:44	248	-6760	T	-0.7948	1.0175	29.4S	88.7E	37 99 01m45s
08247	-15	1471	Jun 18	13:00:12	227	-6537	T	-0.7189	1.0157	22.3S	19.7W	44 77 01m38s
08287	-14	1489	Jun 28	20:04:24	207	-6314	H3	-0.6440	1.0130	16.8S	127.5W	50 58 01m23s
08328	-13	1507	Jul 10	03:06:33	188	-6091	H	-0.5680	1.0095	12.4S	126.0E	55 40 01m01s
08370	-12	1525	Jul 20	10:11:04	171	-5868	H	-0.4947	1.0054	9.3S	19.4E	60 21 00m35s
08412	-11	1543	Jul 31	17:16:23	155	-5645	H	-0.4229	1.0007	7.3S	87.0W	65 3 00m05s
08453	-10	1561	Aug 11	00:27:07	141	-5422	A	-0.3564	0.9956	6.5S	165.5E	69 16 00m27s
08494	-09	1579	Aug 22	07:41:32	129	-5199	A	-0.2937	0.9901	6.6S	57.2E	73 36 01m00s
08535	-08	1597	Sep 11	15:01:22	120	-4976	A	-0.2363	0.9843	7.6S	52.4W	76 57 01m35s
08576	-07	1615	Sep 22	22:27:21	100	-4753	A	-0.1849	0.9784	9.1S	163.5W	79 78 02m11s
08620	-06	1633	Oct 03	06:00:37	73	-4530	Am	-0.1405	0.9726	11.2S	83.4E	82 99 02m48s
08665	-05	1651	Oct 14	13:40:56	46	-4307	A	-0.1025	0.9668	13.5S	31.3W	84 120 03m27s
08711	-04	1669	Oct 24	21:28:05	24	-4084	A	-0.0710	0.9613	15.9S	147.7W	86 141 04m07s
08756	-03	1687	Nov 05	05:22:24	10	-3861	A	-0.0460	0.9561	18.3S	94.3E	87 160 04m49s
08801	-02	1705	Nov 16	13:23:06	9	-3638	A	-0.0271	0.9514	20.4S	25.0W	88 178 05m31s
08846	-01	1723	Nov 27	21:28:16	10	-3415	A	-0.0125	0.9471	22.0S	145.2W	89 195 06m12s
08892	00	1741	Dec 08	05:38:00	12	-3192	A	-0.0024	0.9434	23.0S	93.6E	90 209 06m51s
08938	01	1759	Dec 19	13:50:05	14	-2969	A	0.0051	0.9404	23.3S	28.0W	90 221 07m25s
08984	02	1777	Dec 29	22:03:28	17	-2746	A	0.0110	0.9380	22.7S	150.0W	90 231 07m53s
09030	03	1796	Jan 10	06:14:52	15	-2523	A	0.0179	0.9362	21.1S	88.3E	89 238 08m15s
09075	04	1814	Jan 21	14:24:47	12	-2300	A	0.0253	0.9350	18.6S	33.4W	89 242 08m28s
09120	05	1832	Feb 01	22:30:14	7	-2077	A	0.0355	0.9344	15.3S	154.4W	88 245 08m35s
09164	06	1850	Feb 12	06:29:37	7	-1854	A	0.0503	0.9345	11.0S	85.6E	87 245 08m35s
09206	07	1868	Feb 23	14:21:31	3	-1631	A	0.0706	0.9348	6.1S	33.0W	86 244 08m30s

09248	08	1886	Mar 05	22:05:26	-6	-1408	A	0.0970	0.9357	0.5S	150.1W	84	241	08m20s
09290	09	1904	Mar 17	05:40:44	3	-1185	A	0.1299	0.9367	5.6N	94.7E	82	237	08m07s
09332	10	1922	Mar 28	13:05:26	23	-962	A	0.1711	0.9381	12.3N	18.0W	80	233	07m50s
09375	11	1940	Apr 07	20:21:21	24	-739	A	0.2190	0.9394	19.2N	128.5W	77	230	07m30s
09416	12	1958	Apr 19	03:27:17	32	-516	A	0.2750	0.9408	26.5N	123.6E	74	228	07m07s
09456	13	1976	Apr 29	10:24:18	47	-293	A	0.3378	0.9421	34.0N	18.3E	70	227	06m41s
09495	14	1994	May 10	17:12:26	60	-70	A	0.4077	0.9431	41.5N	84.1W	66	230	06m13s
09535	15	2012	May 20	23:53:54	68	153	A	0.4828	0.9439	49.1N	176.3E	61	237	05m46s
09575	16	2030	Jun 01	06:29:13	78	376	A	0.5626	0.9443	56.5N	80.1E	55	250	05m21s
09615	17	2048	Jun 11	12:58:53	92	599	A	0.6468	0.9441	63.7N	11.5W	49	272	04m58s
09656	18	2066	Jun 22	19:25:48	127	822	A	0.7330	0.9435	70.1N	96.4W	43	309	04m40s
09697	19	2084	Jul 03	01:50:26	167	1045	A	0.8208	0.9421	75.0N	169.1W	35	377	04m25s
09738	20	2102	Jul 15	08:15:14	208	1268	A	0.9080	0.9398	75.9N	134.2E	24	539	04m14s
09779	21	2120	Jul 25	14:40:02	252	1491	An	0.9948	0.9343	66.0N	90.4E	4	-	04m00s
09820	22	2138	Aug 05	21:08:57	298	1714	P	1.0781	0.8285	62.4N	9.2W	0		
09862	23	2156	Aug 16	03:41:28	342	1937	P	1.1584	0.6912	61.9N	116.1W	0		
09905	24	2174	Aug 27	10:19:55	382	2160	P	1.2336	0.5629	61.4N	135.6E	0		
09949	25	2192	Sep 06	17:05:08	424	2383	P	1.3032	0.4444	61.2N	25.8E	0		
09994	26	2210	Sep 18	23:59:09	468	2606	P	1.3657	0.3384	61.0N	86.2W	0		
10037	27	2228	Sep 29	07:02:08	514	2829	P	1.4212	0.2445	61.1N	159.6E	0		
10081	28	2246	Oct 10	14:13:18	562	3052	P	1.4705	0.1615	61.3N	43.4E	0		
10126	29	2264	Oct 20	21:35:23	612	3275	P	1.5111	0.0933	61.6N	75.7W	0		
10171	30	2282	Nov 01	05:06:24	664	3498	Pe	1.5448	0.0370	62.1N	163.0E	0		

SAROS SERIES

129

Saros series 129 contains 80 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
07374	-32	1103 Oct 03	03:17:50	1064	-11085	Pb	1.5318	0.0556	71.7N	157.1W	0		
07419	-31	1121 Oct 13	10:56:27	992	-10862	P	1.5060	0.1012	71.2N	74.2E	0		
07464	-30	1139 Oct 24	18:42:07	925	-10639	P	1.4859	0.1369	70.6N	55.8W	0		
07509	-29	1157 Nov 04	02:33:58	862	-10416	P	1.4710	0.1634	69.7N	173.3E	0		
07554	-28	1175 Nov 15	10:31:20	803	-10193	P	1.4605	0.1821	68.7N	41.6E	0		
07599	-27	1193 Nov 25	18:32:28	747	-9970	P	1.4531	0.1954	67.7N	90.3W	0		
07644	-26	1211 Dec 07	02:36:45	695	-9747	P	1.4484	0.2039	66.6N	137.5E	0		
07690	-25	1229 Dec 17	10:40:21	647	-9524	P	1.4431	0.2132	65.5N	6.1E	0		
07735	-24	1247 Dec 28	18:44:27	601	-9301	P	1.4383	0.2213	64.5N	125.1W	0		
07779	-23	1266 Jan 08	02:44:29	559	-9078	P	1.4301	0.2350	63.6N	105.2E	0		
07822	-22	1284 Jan 19	10:41:02	519	-8855	P	1.4194	0.2525	62.8N	23.3W	0		
07865	-21	1302 Jan 29	18:29:48	482	-8632	P	1.4025	0.2805	62.1N	149.7W	0		
07907	-20	1320 Feb 10	02:13:16	448	-8409	P	1.3813	0.3154	61.5N	85.4E	0		
07948	-19	1338 Feb 20	09:47:30	415	-8186	P	1.3524	0.3632	61.2N	37.0W	0		

07989	-18	1356	Mar 02	17:13:18	385	-7963	P	1.3168	0.4225	60.9N	157.2W	0
08030	-17	1374	Mar 14	00:29:08	356	-7740	P	1.2731	0.4957	60.9N	85.1E	0
08072	-16	1392	Mar 24	07:36:47	329	-7517	P	1.2226	0.5809	60.9N	30.5W	0
08112	-15	1410	Apr 04	14:35:19	303	-7294	P	1.1642	0.6799	61.2N	143.9W	0
08152	-14	1428	Apr 14	21:25:47	279	-7071	P	1.0987	0.7916	61.6N	104.6E	0
08192	-13	1446	Apr 26	04:09:04	256	-6848	P	1.0268	0.9147	62.1N	5.2W	0
08232	-12	1464	May 06	10:46:58	235	-6625	A	0.9502	0.9367	71.2N	72.7W	18 771 04m17s
08272	-11	1482	May 17	17:19:00	214	-6402	A	0.8681	0.9420	73.4N	137.0W	29 434 04m14s
08312	-10	1500	May 27	23:48:31	195	-6179	A	0.7832	0.9461	71.5N	152.4E	38 320 04m13s
08354	-09	1518	Jun 08	06:15:24	177	-5956	A	0.6955	0.9496	67.0N	73.4E	46 259 04m13s
08395	-08	1536	Jun 18	12:43:21	161	-5733	A	0.6079	0.9523	61.0N	13.4W	52 220 04m17s
08436	-07	1554	Jun 29	19:10:40	146	-5510	A	0.5192	0.9546	54.0N	104.8W	58 195 04m22s
08477	-06	1572	Jul 10	01:42:42	134	-5287	A	0.4338	0.9562	46.6N	159.7E	64 177 04m30s
08518	-05	1590	Jul 31	08:17:39	123	-5064	A	0.3503	0.9574	38.8N	61.6E	69 166 04m38s
08559	-04	1608	Aug 10	15:00:06	109	-4841	A	0.2722	0.9581	31.0N	39.6W	74 158 04m46s
08603	-03	1626	Aug 21	21:47:42	84	-4618	A	0.1975	0.9584	23.1N	142.9W	78 154 04m54s
08648	-02	1644	Sep 01	04:45:28	57	-4395	A	0.1307	0.9584	15.4N	110.9E	82 152 05m00s
08693	-01	1662	Sep 12	11:50:45	32	-4172	A	0.0694	0.9581	7.9N	2.6E	86 153 05m05s
08739	00	1680	Sep 22	19:06:23	14	-3949	A	0.0160	0.9578	0.7N	108.2W	89 153 05m08s
08784	01	1698	Oct 04	02:31:25	8	-3726	A	-0.0305	0.9573	6.2S	138.8E	88 155 05m10s
08829	02	1716	Oct 15	10:07:39	10	-3503	A	-0.0687	0.9570	12.5S	23.5E	86 157 05m10s
08874	03	1734	Oct 26	17:53:28	11	-3280	A	-0.0996	0.9567	18.2S	93.8W	84 159 05m08s
08920	04	1752	Nov 06	01:48:14	13	-3057	A	-0.1239	0.9567	23.2S	147.4E	83 159 05m03s
08965	05	1770	Nov 17	09:51:53	16	-2834	A	-0.1416	0.9571	27.3S	27.1E	82 158 04m56s
09011	06	1788	Nov 27	18:02:54	16	-2611	A	-0.1542	0.9579	30.4S	94.3W	81 155 04m46s
09057	07	1806	Dec 10	02:19:40	12	-2388	A	-0.1627	0.9591	32.4S	143.4E	80 151 04m32s
09102	08	1824	Dec 20	10:40:36	10	-2165	Am	-0.1685	0.9610	33.3S	20.4E	80 144 04m15s
09146	09	1842	Dec 31	19:04:24	6	-1942	A	-0.1727	0.9634	33.1S	103.2W	80 135 03m54s

09189	10	1861	Jan 11	03:29:23	8	-1719	A	-0.1766	0.9664	31.8S	132.7E	80	123	03m30s
09231	11	1879	Jan 22	11:53:08	-5	-1496	A	-0.1824	0.9700	29.8S	8.5E	79	110	03m03s
09273	12	1897	Feb 01	20:15:15	-6	-1273	A	-0.1903	0.9742	27.1S	115.7W	79	94	02m34s
09315	13	1915	Feb 14	04:33:20	17	-1050	A	-0.2024	0.9789	24.0S	120.7E	78	77	02m04s
09358	14	1933	Feb 24	12:46:39	24	-827	A	-0.2191	0.9841	20.8S	2.1W	77	58	01m32s
09400	15	1951	Mar 07	20:53:40	30	-604	A	-0.2420	0.9896	17.7S	123.5W	76	38	00m59s
09440	16	1969	Mar 18	04:54:57	39	-381	A	-0.2704	0.9954	14.8S	116.3E	74	16	00m26s
09480	17	1987	Mar 29	12:49:47	55	-158	H	-0.3053	1.0013	12.3S	2.3W	72	5	00m08s
09519	18	2005	Apr 08	20:36:51	65	65	H	-0.3473	1.0074	10.6S	119.0W	70	27	00m42s
09559	19	2023	Apr 20	04:17:56	73	288	H	-0.3952	1.0132	9.6S	125.8E	67	49	01m16s
09599	20	2041	Apr 30	11:52:21	86	511	T	-0.4492	1.0189	9.6S	12.2E	63	72	01m51s
09640	21	2059	May 11	19:22:16	112	734	T	-0.5080	1.0242	10.7S	100.4W	59	95	02m23s
09681	22	2077	May 22	02:46:05	151	957	T	-0.5725	1.0290	13.1S	148.3E	55	119	02m54s
09722	23	2095	Jun 02	10:07:40	192	1180	T	-0.6396	1.0332	16.7S	37.2E	50	145	03m18s
09763	24	2113	Jun 13	17:26:00	235	1403	T	-0.7097	1.0367	21.7S	73.8W	45	174	03m36s
09803	25	2131	Jun 25	00:43:16	280	1626	T	-0.7813	1.0393	28.1S	174.7E	38	211	03m43s
09845	26	2149	Jul 05	07:59:34	327	1849	T	-0.8544	1.0408	36.3S	62.4E	31	264	03m38s
09887	27	2167	Jul 16	15:17:48	366	2072	T	-0.9262	1.0410	46.8S	52.4W	22	368	03m19s
09931	28	2185	Jul 26	22:38:16	407	2295	Ts	-0.9967	1.0370	67.9S	178.5W	1	-	02m27s
09975	29	2203	Aug 08	06:01:56	450	2518	P	-1.0650	0.8898	70.1S	57.0E	0		
10019	30	2221	Aug 18	13:30:39	495	2741	P	-1.1295	0.7673	70.9S	67.8W	0		
10063	31	2239	Aug 29	21:05:15	543	2964	P	-1.1897	0.6529	71.5S	165.5E	0		
10108	32	2257	Sep 09	04:46:44	592	3187	P	-1.2448	0.5480	71.9S	36.6E	0		
10153	33	2275	Sep 20	12:34:54	643	3410	P	-1.2949	0.4527	72.0S	94.3W	0		
10199	34	2293	Sep 30	20:31:28	697	3633	P	-1.3386	0.3697	72.0S	132.7E	0		
10244	35	2311	Oct 13	04:36:09	752	3856	P	-1.3762	0.2985	71.6S	2.1W	0		
10289	36	2329	Oct 23	12:48:23	810	4079	P	-1.4082	0.2383	71.1S	138.5W	0		
10335	37	2347	Nov 03	21:09:19	870	4302	P	-1.4337	0.1903	70.4S	83.4E	0		

SAROS SERIES

130

[illegible]

07355	-35	1096	Aug 20	18:35:35	1093	-11173	Pb	-1.5110	0.0743	61.4S	164.7W	0
07401	-34	1114	Sep 01	01:57:49	1020	-10950	P	-1.4527	0.1773	61.1S	75.7E	0
07446	-33	1132	Sep 11	09:29:13	951	-10727	P	-1.4007	0.2695	60.9S	46.1W	0
07491	-32	1150	Sep 22	17:12:01	886	-10504	P	-1.3568	0.3471	60.9S	170.7W	0
07536	-31	1168	Oct 03	01:04:24	826	-10281	P	-1.3197	0.4129	61.1S	62.2E	0
07582	-30	1186	Oct 14	09:06:01	769	-10058	P	-1.2891	0.4670	61.4S	67.1W	0
07627	-29	1204	Oct 24	17:16:40	715	-9835	P	-1.2650	0.5097	61.9S	161.2E	0
07673	-28	1222	Nov 05	01:35:45	665	-9612	P	-1.2474	0.5408	62.5S	27.2E	0
07718	-27	1240	Nov 15	10:01:04	619	-9389	P	-1.2339	0.5649	63.3S	108.5W	0
07762	-26	1258	Nov 26	18:31:26	575	-9166	P	-1.2239	0.5826	64.2S	114.3E	0
07806	-25	1276	Dec 07	03:05:28	535	-8943	P	-1.2165	0.5960	65.2S	24.2W	0
07849	-24	1294	Dec 18	11:42:14	497	-8720	P	-1.2108	0.6064	66.3S	163.8W	0
07891	-23	1312	Dec 28	20:17:58	461	-8497	P	-1.2038	0.6192	67.4S	56.4E	0
07932	-22	1331	Jan 09	04:53:22	428	-8274	P	-1.1961	0.6333	68.4S	83.8W	0
07973	-21	1349	Jan 19	13:24:42	396	-8051	P	-1.1847	0.6546	69.5S	136.3E	0
08014	-20	1367	Jan 30	21:53:13	367	-7828	P	-1.1704	0.6812	70.4S	3.5W	0
08055	-19	1385	Feb 10	06:14:26	339	-7605	P	-1.1498	0.7198	71.1S	142.1W	0
08096	-18	1403	Feb 21	14:31:42	313	-7382	P	-1.1253	0.7660	71.7S	79.8E	0
08136	-17	1421	Mar 03	22:40:34	289	-7159	P	-1.0933	0.8265	72.0S	56.6W	0
08176	-16	1439	Mar 15	06:43:34	265	-6936	P	-1.0559	0.8980	72.1S	168.3E	0
08216	-15	1457	Mar 25	14:38:16	243	-6713	P	-1.0107	0.9845	71.9S	35.4E	0
08256	-14	1475	Apr 05	22:27:42	222	-6490	T	-0.9607	1.0310	60.5S	123.6W	15 386 02m08s
08296	-13	1493	Apr 16	06:10:20	203	-6267	T	-0.9042	1.0391	49.5S	107.3E	25 308 03m00s
08337	-12	1511	Apr 27	13:47:24	184	-6044	T	-0.8425	1.0463	40.0S	14.7W	32 286 03m50s
08379	-11	1529	May 07	21:19:50	167	-5821	T	-0.7760	1.0526	31.3S	133.1W	39 276 04m38s
08420	-10	1547	May 19	04:48:58	152	-5598	T	-0.7060	1.0581	23.5S	110.7E	45 270 05m22s
08461	-09	1565	May 29	12:15:00	138	-5375	T	-0.6329	1.0629	16.5S	3.7W	51 266 05m57s
08502	-08	1583	Jun 19	19:39:32	127	-5152	T	-0.5581	1.0667	10.4S	116.9W	56 262 06m23s

08543	-07	1601	Jun 30	03:03:59	117	-4929	T	-0.4826	1.0697	5.3S	130.7E	61	259	06m37s
08585	-06	1619	Jul 11	10:29:59	95	-4706	T	-0.4077	1.0718	1.3S	18.6E	66	255	06m41s
08629	-05	1637	Jul 21	17:57:08	68	-4483	T	-0.3335	1.0731	1.8N	93.4W	71	251	06m37s
08675	-04	1655	Aug 02	01:28:36	41	-4260	T	-0.2625	1.0735	3.7N	154.0E	75	247	06m28s
08721	-03	1673	Aug 12	09:04:05	20	-4037	T	-0.1946	1.0731	4.6N	40.6E	79	242	06m15s
08766	-02	1691	Aug 23	16:45:57	9	-3814	T	-0.1317	1.0720	4.5N	74.3W	82	236	06m01s
08811	-01	1709	Sep 04	00:32:26	9	-3591	T	-0.0725	1.0703	3.7N	169.7E	86	229	05m47s
08856	00	1727	Sep 15	08:27:31	10	-3368	T	-0.0202	1.0681	2.2N	51.4E	89	222	05m33s
08902	01	1745	Sep 25	16:28:56	12	-3145	Tm	0.0269	1.0655	0.3N	68.6W	88	214	05m21s
08947	02	1763	Oct 07	00:39:04	15	-2922	T	0.0666	1.0627	2.0S	169.1E	86	206	05m09s
08993	03	1781	Oct 17	08:55:59	17	-2699	T	0.1007	1.0596	4.3S	45.1E	84	197	04m59s
09038	04	1799	Oct 28	17:21:46	14	-2476	T	0.1274	1.0566	6.7S	81.3W	83	188	04m50s
09083	05	1817	Nov 09	01:53:53	12	-2253	T	0.1487	1.0536	8.9S	150.9E	82	179	04m42s
09128	06	1835	Nov 20	10:31:58	6	-2030	T	0.1649	1.0510	10.7S	21.6E	81	171	04m35s
09172	07	1853	Nov 30	19:15:39	7	-1807	T	0.1763	1.0485	12.0S	109.0W	80	164	04m28s
09215	08	1871	Dec 12	04:03:38	-1	-1584	T	0.1836	1.0465	12.7S	119.4E	80	157	04m23s
09257	09	1889	Dec 22	12:54:15	-6	-1361	T	0.1888	1.0449	12.7S	12.8W	79	152	04m18s
09299	10	1908	Jan 03	21:45:22	8	-1138	T	0.1934	1.0437	11.8S	145.1W	79	149	04m14s
09341	11	1926	Jan 14	06:36:58	24	-915	T	0.1973	1.0430	10.1S	82.3E	79	147	04m11s
09384	12	1944	Jan 25	15:26:42	26	-692	T	0.2025	1.0428	7.6S	50.2W	78	146	04m09s
09424	13	1962	Feb 05	00:12:38	34	-469	T	0.2107	1.0430	4.2S	178.1E	78	147	04m08s
09464	14	1980	Feb 16	08:54:01	51	-246	T	0.2224	1.0434	0.1S	47.1E	77	149	04m08s
09503	15	1998	Feb 26	17:29:27	63	-23	T	0.2391	1.0441	4.7N	82.7W	76	151	04m09s
09543	16	2016	Mar 09	01:58:19	70	200	T	0.2609	1.0450	10.1N	148.8E	75	155	04m09s
09583	17	2034	Mar 20	10:18:45	80	423	T	0.2894	1.0458	16.1N	22.2E	73	159	04m09s
09623	18	2052	Mar 30	18:31:53	97	646	T	0.3238	1.0466	22.4N	102.5W	71	164	04m08s
09665	19	2070	Apr 11	02:36:09	135	869	T	0.3652	1.0472	29.1N	135.1E	68	168	04m04s
09706	20	2088	Apr 21	10:31:49	175	1092	T	0.4135	1.0474	36.0N	15.1E	65	173	03m58s

09747	21	2106	May 03	18:19:20	217	1315	T	0.4681	1.0472	43.1N	102.3W	62	177	03m47s
09788	22	2124	May 14	01:59:10	262	1538	T	0.5286	1.0464	50.3N	143.2E	58	182	03m34s
09829	23	2142	May 25	09:32:37	308	1761	T	0.5937	1.0449	57.4N	31.9E	53	187	03m17s
09871	24	2160	Jun 04	16:58:36	350	1984	T	0.6645	1.0428	64.5N	74.9W	48	192	02m58s
09914	25	2178	Jun 16	00:20:42	391	2207	T	0.7378	1.0396	71.0N	175.3W	42	198	02m36s
09958	26	2196	Jun 26	07:37:40	433	2430	T	0.8149	1.0356	76.3N	97.0E	35	208	02m12s
10002	27	2214	Jul 08	14:52:45	477	2653	T	0.8925	1.0303	78.1N	28.3E	26	230	01m46s
10046	28	2232	Jul 18	22:04:56	524	2876	T	0.9717	1.0229	72.4N	33.4W	13	348	01m14s
10090	29	2250	Jul 30	05:18:25	572	3099	P	1.0490	0.9114	62.9N	124.7W	0		
10135	30	2268	Aug 09	12:32:05	623	3322	P	1.1254	0.7684	62.2N	118.0E	0		
10181	31	2286	Aug 20	19:48:22	675	3545	P	1.1987	0.6322	61.7N	0.2E	0		
10226	32	2304	Sep 01	03:07:40	730	3768	P	1.2684	0.5038	61.4N	118.2W	0		
10271	33	2322	Sep 12	10:32:06	787	3991	P	1.3328	0.3865	61.1N	122.2E	0		
10316	34	2340	Sep 22	18:01:34	846	4214	P	1.3925	0.2793	61.1N	1.4E	0		
10362	35	2358	Oct 04	01:36:39	907	4437	P	1.4464	0.1835	61.1N	120.7W	0		
10406	36	2376	Oct 14	09:18:28	970	4660	P	1.4941	0.1003	61.4N	115.4E	0		
10450	37	2394	Oct 25	17:07:13	1035	4883	Pe	1.5351	0.0298	61.8N	10.3W	0		

SAROS SERIES

131

Saros series 131 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
07428	-37	1125 Aug 01	05:15:09	978	-10815	Pb	1.4666	0.1198	69.9N	109.5W	0		
07473	-36	1143 Aug 12	12:57:36	911	-10592	P	1.4088	0.2324	70.7N	121.9E	0		
07518	-35	1161 Aug 22	20:46:37	849	-10369	P	1.3564	0.3340	71.3N	8.8W	0		
07564	-34	1179 Sep 03	04:42:14	791	-10146	P	1.3096	0.4241	71.7N	141.7W	0		
07609	-33	1197 Sep 13	12:45:54	736	-9923	P	1.2695	0.5009	71.9N	83.1E	0		
07654	-32	1215 Sep 24	20:55:57	685	-9700	P	1.2351	0.5664	71.9N	53.7W	0		
07700	-31	1233 Oct 05	05:14:34	637	-9477	P	1.2080	0.6174	71.6N	167.4E	0		
07745	-30	1251 Oct 16	13:39:20	592	-9254	P	1.1863	0.6578	71.0N	27.4E	0		
07789	-29	1269 Oct 26	22:11:15	550	-9031	P	1.1708	0.6862	70.3N	113.8W	0		
07832	-28	1287 Nov 07	06:48:15	511	-8808	P	1.1600	0.7059	69.4N	104.2E	0		
07874	-27	1305 Nov 17	15:30:56	475	-8585	P	1.1540	0.7163	68.4N	38.4W	0		
07916	-26	1323 Nov 29	00:16:10	441	-8362	P	1.1509	0.7215	67.3N	178.8E	0		
07957	-25	1341 Dec 09	09:03:29	409	-8139	P	1.1500	0.7229	66.3N	36.2E	0		
07998	-24	1359 Dec 20	17:50:58	378	-7916	P	1.1496	0.7231	65.2N	106.0W	0		
08039	-23	1377 Dec 31	02:38:10	350	-7693	P	1.1494	0.7234	64.3N	112.2E	0		
08080	-22	1396 Jan 11	11:21:14	323	-7470	P	1.1464	0.7287	63.4N	28.1W	0		
08120	-21	1414 Jan 21	20:00:46	298	-7247	P	1.1411	0.7384	62.6N	167.3W	0		
08160	-20	1432 Feb 02	04:33:42	274	-7024	P	1.1309	0.7571	62.0N	55.4E	0		
08200	-19	1450 Feb 12	13:01:23	252	-6801	P	1.1169	0.7829	61.5N	80.5W	0		
08240	-18	1468 Feb 23	21:18:55	230	-6578	P	1.0953	0.8228	61.2N	146.3E	0		
08280	-17	1486 Mar 06	05:30:00	210	-6355	P	1.0689	0.8714	61.0N	14.7E	0		

08321	-16	1504	Mar 16	13:30:09	191	-6132	P	1.0345	0.9348	61.0N	114.0W	0
08363	-15	1522	Mar 27	21:22:59	174	-5909	T	0.9946	1.0076	62.0N	127.7E	4 347 00m26s
08404	-14	1540	Apr 07	05:04:30	158	-5686	T	0.9462	1.0115	63.1N	34.7E	18 123 00m42s
08445	-13	1558	Apr 18	12:39:27	144	-5463	T	0.8930	1.0132	64.1N	67.8W	26 100 00m50s
08486	-12	1576	Apr 28	20:04:44	131	-5240	T	0.8328	1.0140	64.8N	168.0W	33 86 00m55s
08527	-11	1594	May 20	03:23:17	121	-5017	T	0.7678	1.0141	64.9N	94.1E	40 76 00m58s
08567	-10	1612	May 30	10:34:29	104	-4794	T	0.6976	1.0135	63.6N	1.9W	45 65 00m58s
08611	-09	1630	Jun 10	17:41:07	79	-4571	H	0.6244	1.0122	60.9N	98.3W	51 54 00m55s
08656	-08	1648	Jun 21	00:43:22	51	-4348	H	0.5483	1.0102	56.7N	164.0E	56 42 00m49s
08702	-07	1666	Jul 02	07:42:30	27	-4125	H	0.4704	1.0075	51.4N	64.4E	62 29 00m39s
08748	-06	1684	Jul 12	14:40:35	11	-3902	H	0.3926	1.0041	45.2N	37.1W	67 16 00m23s
08793	-05	1702	Jul 24	21:38:51	8	-3679	H	0.3160	1.0001	38.4N	140.4W	71 1 00m01s
08838	-04	1720	Aug 04	04:38:15	10	-3456	A	0.2409	0.9957	31.1N	114.8E	76 16 00m27s
08884	-03	1738	Aug 15	11:40:12	11	-3233	A	0.1688	0.9907	23.7N	8.4E	80 33 01m00s
08930	-02	1756	Aug 25	18:46:17	14	-3010	Am	0.1009	0.9853	16.1N	99.5W	84 52 01m38s
08975	-01	1774	Sep 06	01:57:40	16	-2787	A	0.0385	0.9797	8.7N	150.9E	88 72 02m20s
09021	00	1792	Sep 16	09:13:52	16	-2564	A	-0.0191	0.9739	1.3N	39.9E	89 93 03m02s
09066	01	1810	Sep 28	16:37:25	12	-2341	A	-0.0696	0.9681	5.8S	72.8W	86 115 03m45s
09111	02	1828	Oct 09	00:07:47	8	-2118	A	-0.1139	0.9623	12.5S	173.0E	83 137 04m26s
09155	03	1846	Oct 20	07:46:12	6	-1895	A	-0.1506	0.9567	18.7S	57.3E	81 159 05m05s
09198	04	1864	Oct 30	15:30:31	6	-1672	A	-0.1816	0.9514	24.3S	59.3W	79 181 05m41s
09240	05	1882	Nov 10	23:22:21	-6	-1449	A	-0.2056	0.9465	29.2S	177.0W	78 201 06m14s
09282	06	1900	Nov 22	07:19:43	-2	-1226	A	-0.2245	0.9421	33.1S	64.8E	77 220 06m42s
09325	07	1918	Dec 03	15:22:02	21	-1003	A	-0.2387	0.9383	36.1S	53.7W	76 236 07m06s
09368	08	1936	Dec 13	23:28:12	24	-780	A	-0.2493	0.9349	37.8S	172.6W	75 251 07m25s
09409	09	1954	Dec 25	07:36:42	31	-557	A	-0.2576	0.9323	38.4S	68.2E	75 262 07m39s
09449	10	1973	Jan 04	15:46:21	43	-334	A	-0.2644	0.9303	37.9S	51.2W	74 271 07m49s
09488	11	1991	Jan 15	23:53:51	58	-111	A	-0.2727	0.9290	36.4S	170.4W	74 277 07m53s

09527	12	2009 Jan 26	07:59:45	66	112	A	-0.2820	0.9282	34.1S	70.2E	73	280	07m54s
09567	13	2027 Feb 06	16:00:48	76	335	A	-0.2952	0.9281	31.3S	48.5W	73	282	07m51s
09607	14	2045 Feb 16	23:56:07	89	558	A	-0.3125	0.9285	28.3S	166.2W	72	281	07m47s
09648	15	2063 Feb 28	07:43:30	120	781	A	-0.3360	0.9293	25.2S	77.7E	70	280	07m41s
09689	16	2081 Mar 10	15:23:31	159	1004	A	-0.3653	0.9304	22.4S	36.7W	68	277	07m36s
09731	17	2099 Mar 21	22:54:32	201	1227	A	-0.4016	0.9318	20.0S	149.0W	66	275	07m32s
09772	18	2117 Apr 02	06:15:20	244	1450	A	-0.4459	0.9333	18.4S	101.1E	63	274	07m30s
09813	19	2135 Apr 13	13:27:05	289	1673	A	-0.4973	0.9349	17.6S	6.5W	60	274	07m30s
09855	20	2153 Apr 23	20:29:24	335	1896	A	-0.5557	0.9364	17.9S	111.8W	56	279	07m31s
09897	21	2171 May 05	03:23:15	374	2119	A	-0.6209	0.9378	19.4S	144.8E	51	289	07m32s
09941	22	2189 May 15	10:08:34	416	2342	A	-0.6928	0.9387	22.6S	43.3E	46	309	07m31s
09986	23	2207 May 27	16:47:47	459	2565	A	-0.7692	0.9393	27.5S	57.0W	40	347	07m25s
10029	24	2225 Jun 06	23:21:31	505	2788	A	-0.8496	0.9392	34.6S	156.5W	32	425	07m10s
10073	25	2243 Jun 18	05:49:56	553	3011	A	-0.9342	0.9380	45.6S	104.7E	20	652	06m41s
10118	26	2261 Jun 28	12:16:28	603	3234	P	-1.0198	0.9282	66.6S	6.0E	0		
10163	27	2279 Jul 09	18:41:13	654	3457	P	-1.1065	0.7802	67.7S	100.7W	0		
10209	28	2297 Jul 20	01:07:47	708	3680	P	-1.1915	0.6346	68.7S	151.6E	0		
10254	29	2315 Aug 01	07:34:32	764	3903	P	-1.2761	0.4898	69.6S	43.3E	0		
10299	30	2333 Aug 11	14:06:48	822	4126	P	-1.3558	0.3534	70.5S	66.9W	0		
10345	31	2351 Aug 22	20:42:47	882	4349	P	-1.4322	0.2228	71.2S	178.6W	0		
10390	32	2369 Sep 02	03:25:56	945	4572	Pe	-1.5027	0.1025	71.7S	67.4E	0		

SAROS SERIES

Saros series 132 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
07637	-33	1208 Aug 13	08:26:52	704	-9788	Pb	-1.5227	0.0639	61.7S	8.8W	0		
07683	-32	1226 Aug 24	15:25:45	655	-9565	P	-1.4633	0.1684	61.3S	122.5W	0		
07728	-31	1244 Sep 03	22:31:22	609	-9342	P	-1.4095	0.2623	61.0S	122.1E	0		
07772	-30	1262 Sep 15	05:45:07	566	-9119	P	-1.3624	0.3436	60.9S	4.9E	0		
07815	-29	1280 Sep 25	13:06:53	526	-8896	P	-1.3218	0.4131	61.0S	114.4W	0		
07858	-28	1298 Oct 06	20:35:16	489	-8673	P	-1.2867	0.4728	61.2S	124.7E	0		
07900	-27	1316 Oct 17	04:12:33	454	-8450	P	-1.2591	0.5193	61.6S	1.5E	0		
07941	-26	1334 Oct 28	11:56:18	421	-8227	P	-1.2370	0.5560	62.1S	123.4W	0		
07982	-25	1352 Nov 07	19:47:15	390	-8004	P	-1.2209	0.5826	62.8S	109.7E	0		
08023	-24	1370 Nov 19	03:42:08	361	-7781	P	-1.2082	0.6034	63.6S	18.4W	0		
08064	-23	1388 Nov 29	11:42:20	334	-7558	P	-1.1999	0.6170	64.6S	148.1W	0		
08104	-22	1406 Dec 10	19:43:54	308	-7335	P	-1.1928	0.6285	65.6S	81.5E	0		
08144	-21	1424 Dec 21	03:46:29	284	-7112	P	-1.1867	0.6384	66.7S	49.6W	0		
08184	-20	1443 Jan 01	11:47:21	261	-6889	P	-1.1793	0.6506	67.8S	179.2E	0		
08224	-19	1461 Jan 11	19:46:21	239	-6666	P	-1.1705	0.6651	68.9S	47.9E	0		
08264	-18	1479 Jan 23	03:39:45	218	-6443	P	-1.1571	0.6875	69.9S	82.6W	0		
08304	-17	1497 Feb 02	11:27:50	199	-6220	P	-1.1393	0.7176	70.7S	147.5E	0		

08346	-16	1515	Feb 13	19:08:19	181	-5997	P	-1.1153	0.7580	71.5S	18.9E	0
08388	-15	1533	Feb 24	02:42:10	164	-5774	P	-1.0860	0.8077	71.9S	108.5W	0
08429	-14	1551	Mar 07	10:05:18	149	-5551	P	-1.0477	0.8730	72.2S	126.5E	0
08470	-13	1569	Mar 17	17:21:18	136	-5328	A-	-1.0033	0.9489	72.1S	3.1E	0
08511	-12	1587	Apr 08	00:27:05	125	-5105	A	-0.9502	0.9271	60.5S	151.9W	18 889 06m26s
08552	-11	1605	Apr 18	07:26:44	113	-4882	A	-0.8918	0.9327	49.8S	89.9E	27 553 06m43s
08594	-10	1623	Apr 29	14:16:00	89	-4659	A	-0.8244	0.9378	39.8S	20.4W	34 405 06m54s
08639	-09	1641	May 09	21:01:19	62	-4436	A	-0.7532	0.9425	30.8S	127.3W	41 321 06m56s
08684	-08	1659	May 21	03:38:53	36	-4213	A	-0.6747	0.9469	22.2S	129.2E	47 264 06m51s
08730	-07	1677	May 31	10:13:53	16	-3990	A	-0.5935	0.9510	14.4S	27.5E	53 223 06m36s
08775	-06	1695	Jun 11	16:44:24	8	-3767	A	-0.5077	0.9545	7.4S	72.2W	59 193 06m13s
08820	-05	1713	Jun 22	23:15:39	9	-3544	A	-0.4216	0.9576	1.3S	171.2W	65 170 05m45s
08866	-04	1731	Jul 04	05:46:25	11	-3321	A	-0.3341	0.9602	3.8N	90.8E	71 153 05m15s
08912	-03	1749	Jul 14	12:19:20	13	-3098	A	-0.2476	0.9623	7.8N	7.2W	76 141 04m46s
08957	-02	1767	Jul 25	18:55:48	16	-2875	A	-0.1630	0.9638	10.8N	105.5W	81 132 04m21s
09003	-01	1785	Aug 05	01:37:22	17	-2652	A	-0.0817	0.9650	12.7N	155.3E	85 127 04m01s
09048	00	1803	Aug 17	08:25:03	12	-2429	A	-0.0048	0.9657	13.6N	54.7E	90 124 03m47s
09093	01	1821	Aug 27	15:19:42	11	-2206	A	0.0671	0.9661	13.6N	47.8W	86 123 03m38s
09137	02	1839	Sep 07	22:23:26	5	-1983	Am	0.1325	0.9661	12.8N	152.7W	82 123 03m34s
09180	03	1857	Sep 18	05:36:05	7	-1760	A	0.1912	0.9659	11.6N	100.0E	79 125 03m34s
09223	04	1875	Sep 29	12:58:09	-4	-1537	A	0.2427	0.9656	10.0N	10.1W	76 127 03m36s
09265	05	1893	Oct 09	20:30:22	-6	-1314	A	0.2866	0.9652	8.1N	123.0W	73 130 03m41s
09307	06	1911	Oct 22	04:13:02	13	-1091	A	0.3224	0.9650	6.3N	121.4E	71 133 03m47s
09350	07	1929	Nov 01	12:05:10	24	-868	A	0.3514	0.9649	4.5N	3.1E	69 134 03m54s
09393	08	1947	Nov 12	20:05:37	28	-645	A	0.3743	0.9650	3.0N	117.4W	68 135 03m59s
09433	09	1965	Nov 23	04:14:51	36	-422	A	0.3906	0.9656	1.7N	119.8E	67 134 04m02s
09473	10	1983	Dec 04	12:31:15	54	-199	A	0.4015	0.9666	0.9N	4.7W	66 131 04m01s
09512	11	2001	Dec 14	20:53:01	64	24	A	0.4089	0.9681	0.6N	130.7W	66 126 03m53s

09552	12	2019 Dec 26	05:18:53	72	247	A	0.4135	0.9701	1.0N 102.3E	66	118	03m40s
09592	13	2038 Jan 05	13:47:11	83	470	A	0.4169	0.9728	2.1N 25.4W	65	107	03m18s
09632	14	2056 Jan 16	22:16:45	105	693	A	0.4199	0.9759	3.9N 153.5W	65	95	02m52s
09673	15	2074 Jan 27	06:44:15	144	916	A	0.4251	0.9798	6.6N 78.8E	65	79	02m21s
09714	16	2092 Feb 07	15:10:20	184	1139	A	0.4322	0.9840	9.9N 48.7W	64	62	01m48s
09755	17	2110 Feb 18	23:31:35	227	1362	A	0.4438	0.9888	14.1N 175.3W	64	44	01m12s
09796	18	2128 Mar 01	07:48:32	271	1585	A	0.4596	0.9940	18.9N 59.1E	63	24	00m37s
09838	19	2146 Mar 12	15:58:15	318	1808	A	0.4821	0.9995	24.4N 65.0W	61	2	00m03s
09880	20	2164 Mar 23	00:02:47	359	2031	H	0.5095	1.0051	30.4N 172.1E	59	20	00m29s
09924	21	2182 Apr 03	07:59:43	399	2254	H	0.5439	1.0108	36.9N 51.0E	57	44	00m58s
09968	22	2200 Apr 14	15:49:57	442	2477	T	0.5847	1.0165	43.8N 68.3W	54	69	01m23s
10012	23	2218 Apr 25	23:33:14	487	2700	T	0.6321	1.0219	51.1N 174.3E	51	96	01m43s
10056	24	2236 May 06	07:11:03	534	2923	T	0.6848	1.0269	58.7N 58.9E	46	126	01m59s
10100	25	2254 May 17	14:43:39	583	3146	T	0.7426	1.0315	66.7N 54.1W	42	160	02m09s
10145	26	2272 May 27	22:11:12	634	3369	T	0.8053	1.0353	75.0N 163.2W	36	202	02m14s
10191	27	2290 Jun 08	05:35:49	687	3592	T	0.8713	1.0382	83.8N 100.9E	29	265	02m14s
10236	28	2308 Jun 19	12:57:53	742	3815	T	0.9402	1.0396	84.1N 120.6E	19	401	02m08s
10281	29	2326 Jun 30	20:18:36	799	4038	P	1.0107	0.9931	65.2N 37.3E	0		
10326	30	2344 Jul 11	03:39:15	858	4261	P	1.0818	0.8591	64.3N 82.3W	0		
10372	31	2362 Jul 22	11:01:14	920	4484	P	1.1522	0.7256	63.5N 157.9E	0		
10416	32	2380 Aug 01	18:26:17	983	4707	P	1.2207	0.5949	62.8N 37.7E	0		
10460	33	2398 Aug 13	01:53:37	1049	4930	P	1.2877	0.4669	62.2N 82.9W	0		
10503	34	2416 Aug 23	09:26:38	1116	5153	P	1.3505	0.3468	61.8N 155.2E	0		
10546	35	2434 Sep 03	17:04:08	1186	5376	P	1.4099	0.2331	61.5N 32.2E	0		
10589	36	2452 Sep 14	00:49:17	1258	5599	P	1.4635	0.1307	61.3N 92.5W	0		
10631	37	2470 Sep 25	08:39:57	1332	5822	Pe	1.5130	0.0365	61.3N 141.4E	0		

SAROS SERIES

133

Saros series 133 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

07664	-35	1219 Jul 13	08:23:41	674	-9653	Pb	1.5337	0.0308	68.4N	137.2W	0		
07710	-34	1237 Jul 23	15:20:43	627	-9430	P	1.4562	0.1681	69.4N	106.7E	0		
07755	-33	1255 Aug 03	22:23:39	583	-9207	P	1.3823	0.2996	70.2N	11.5W	0		
07799	-32	1273 Aug 14	05:35:26	542	-8984	P	1.3146	0.4205	71.0N	132.5W	0		
07842	-31	1291 Aug 25	12:55:31	503	-8761	P	1.2525	0.5314	71.6N	103.8E	0		
07884	-30	1309 Sep 04	20:25:26	467	-8538	P	1.1974	0.6300	72.0N	22.7W	0		
07925	-29	1327 Sep 16	04:04:29	434	-8315	P	1.1489	0.7168	72.1N	151.8W	0		
07966	-28	1345 Sep 26	11:53:53	402	-8092	P	1.1079	0.7902	72.0N	76.5E	0		
08007	-27	1363 Oct 07	19:52:55	372	-7869	P	1.0741	0.8507	71.6N	57.4W	0		
08048	-26	1381 Oct 18	04:00:20	344	-7646	P	1.0464	0.9004	71.0N	167.1E	0		

08089	-25	1399	Oct 29	12:17:08	318	-7423	P	1.0256	0.9380	70.2N	29.8E	0
08129	-24	1417	Nov 08	20:41:02	293	-7200	P	1.0097	0.9670	69.2N	108.6W	0
08169	-23	1435	Nov 20	05:12:02	269	-6977	A+	0.9991	0.9868	68.2N	111.8E	0
08209	-22	1453	Nov 30	13:46:17	247	-6754	A	0.9903	0.9842	60.4N	27.7W	7 469 01m14s
08248	-21	1471	Dec 11	22:25:20	226	-6531	A	0.9849	0.9871	57.1N	165.0W	9 287 01m02s
08288	-20	1489	Dec 22	07:04:57	206	-6308	A	0.9791	0.9904	54.6N	58.8E	11 175 00m47s
08329	-19	1508	Jan 02	15:45:09	188	-6085	A	0.9732	0.9941	52.8N	77.0W	13 92 00m28s
08371	-18	1526	Jan 13	00:22:31	170	-5862	A	0.9644	0.9985	51.0N	148.8E	15 19 00m07s
08413	-17	1544	Jan 24	08:57:45	155	-5639	H	0.9533	1.0035	49.7N	16.0E	17 40 00m16s
08454	-16	1562	Feb 03	17:27:33	141	-5416	T	0.9373	1.0091	48.6N	114.5W	20 89 00m41s
08495	-15	1580	Feb 15	01:52:13	129	-5193	T	0.9164	1.0151	47.9N	117.3E	23 127 01m07s
08536	-14	1598	Mar 07	10:10:01	119	-4970	T	0.8893	1.0214	47.7N	8.2W	27 156 01m33s
08577	-13	1616	Mar 17	18:21:45	99	-4747	T	0.8568	1.0279	48.0N	131.4W	31 180 01m58s
08621	-12	1634	Mar 29	02:25:11	73	-4524	T	0.8169	1.0346	48.7N	108.6E	35 198 02m24s
08666	-11	1652	Apr 08	10:22:28	46	-4301	T	0.7713	1.0412	49.6N	8.9W	39 213 02m49s
08712	-10	1670	Apr 19	18:12:20	23	-4078	T	0.7191	1.0476	50.6N	123.3W	44 225 03m15s
08757	-09	1688	Apr 30	01:57:34	10	-3855	T	0.6621	1.0535	51.4N	124.4E	48 234 03m40s
08802	-08	1706	May 12	09:35:09	9	-3632	T	0.5984	1.0591	51.5N	15.2E	53 242 04m06s
08847	-07	1724	May 22	17:10:09	10	-3409	T	0.5318	1.0640	50.8N	92.9W	58 247 04m33s
08893	-06	1742	Jun 03	00:39:57	12	-3186	T	0.4607	1.0683	49.0N	160.2E	62 251 05m00s
08939	-05	1760	Jun 13	08:09:15	14	-2963	T	0.3883	1.0719	46.0N	52.7E	67 254 05m27s
08985	-04	1778	Jun 24	15:34:56	17	-2740	T	0.3127	1.0746	41.8N	55.0W	72 255 05m52s
09031	-03	1796	Jul 04	23:02:54	15	-2517	T	0.2385	1.0764	36.8N	164.6W	76 255 06m15s
09076	-02	1814	Jul 17	06:30:29	12	-2294	T	0.1641	1.0774	30.9N	84.7E	80 254 06m33s
09121	-01	1832	Jul 27	14:01:06	6	-2071	T	0.0919	1.0776	24.5N	27.9W	85 252 06m46s
09165	00	1850	Aug 07	21:33:54	7	-1848	T	0.0215	1.0769	17.7N	141.8W	89 249 06m50s
09207	01	1868	Aug 18	05:12:10	2	-1625	Tm	-0.0443	1.0756	10.6N	102.2E	88 245 06m47s
09249	02	1886	Aug 29	12:55:23	-6	-1402	T	-0.1059	1.0735	3.5N	15.3W	84 240 06m36s

09291	03	1904 Sep 09	20:44:21	3	-1179	T	-0.1625	1.0709	3.7S	134.5W	81	234	06m20s
09333	04	1922 Sep 21	04:40:31	23	-956	T	-0.2130	1.0678	10.7S	104.5E	78	226	05m59s
09376	05	1940 Oct 01	12:44:06	25	-733	T	-0.2573	1.0645	17.5S	18.2W	75	218	05m35s
09417	06	1958 Oct 12	20:55:28	33	-510	T	-0.2951	1.0608	24.0S	142.4W	73	209	05m11s
09457	07	1976 Oct 23	05:13:45	47	-287	T	-0.3270	1.0572	30.0S	92.3E	71	199	04m46s
09496	08	1994 Nov 03	13:40:06	61	-64	T	-0.3522	1.0535	35.4S	34.2W	69	189	04m23s
09536	09	2012 Nov 13	22:12:55	68	159	T	-0.3719	1.0500	40.0S	161.3W	68	179	04m02s
09576	10	2030 Nov 25	06:51:37	78	382	T	-0.3867	1.0468	43.6S	71.2E	67	169	03m44s
09616	11	2048 Dec 05	15:35:27	92	605	T	-0.3973	1.0440	46.1S	56.4W	66	160	03m28s
09657	12	2066 Dec 17	00:23:40	128	828	T	-0.4043	1.0416	47.4S	175.8E	66	152	03m14s
09698	13	2084 Dec 27	09:13:48	168	1051	T	-0.4094	1.0396	47.3S	47.7E	66	146	03m04s
09739	14	2103 Jan 08	18:04:21	210	1274	T	-0.4140	1.0381	46.1S	80.8W	65	140	02m57s
09780	15	2121 Jan 19	02:54:15	253	1497	T	-0.4190	1.0371	43.9S	150.1E	65	137	02m52s
09821	16	2139 Jan 30	11:42:25	299	1720	T	-0.4255	1.0364	41.0S	20.7E	65	135	02m49s
09863	17	2157 Feb 09	20:25:36	343	1943	T	-0.4358	1.0362	37.7S	108.4W	64	135	02m49s
09906	18	2175 Feb 21	05:04:24	383	2166	T	-0.4495	1.0362	34.2S	122.9E	63	135	02m50s
09950	19	2193 Mar 03	13:36:08	425	2389	T	-0.4689	1.0365	30.9S	4.4W	62	137	02m53s
09995	20	2211 Mar 15	22:01:40	469	2612	T	-0.4931	1.0368	27.8S	130.6W	60	140	02m57s
10039	21	2229 Mar 26	06:17:35	515	2835	T	-0.5251	1.0371	25.5S	105.5E	58	144	03m02s
10083	22	2247 Apr 06	14:26:51	563	3058	T	-0.5624	1.0372	23.8S	16.9W	56	149	03m07s
10128	23	2265 Apr 16	22:26:19	613	3281	T	-0.6073	1.0371	23.1S	136.8W	52	154	03m11s
10173	24	2283 Apr 28	06:18:21	666	3504	T	-0.6581	1.0366	23.6S	105.0E	49	160	03m13s
10218	25	2301 May 09	14:00:59	720	3727	T	-0.7161	1.0354	25.5S	11.0W	44	168	03m10s
10263	26	2319 May 20	21:37:23	776	3950	T	-0.7786	1.0336	29.0S	125.8W	39	178	03m02s
10308	27	2337 May 31	05:05:56	835	4173	T	-0.8470	1.0309	34.6S	121.2E	32	195	02m46s
10354	28	2355 Jun 11	12:28:18	895	4396	T	-0.9196	1.0269	43.3S	9.2E	23	233	02m18s
10399	29	2373 Jun 21	19:45:29	958	4619	Ts	-0.9954	1.0191	62.7S	100.1W	3	-	01m24s
10442	30	2391 Jul 03	02:58:53	1023	4842	P	-1.0732	0.8664	67.1S	143.0E	0		

10486 31 2409 Jul 13 10:09:33 1089 5065 P -1.1523 0.7186 68.1S 24.6E 0
10529 32 2427 Jul 24 17:18:10 1158 5288 P -1.2318 0.5709 69.1S 93.7W 0
10572 33 2445 Aug 04 00:27:22 1229 5511 P -1.3097 0.4272 70.0S 147.3E 0
10615 34 2463 Aug 15 07:37:35 1302 5734 P -1.3853 0.2892 70.8S 27.4E 0
10657 35 2481 Aug 25 14:49:25 1377 5957 P -1.4585 0.1568 71.4S 93.5W 0
10699 36 2499 Sep 05 22:05:19 1454 6180 Pe -1.5273 0.0340 71.9S 144.2E 0

SAROS SERIES

134

Saros series 134 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
											ECLIPSE		

07737 -37 1248 Jun 22 19:09:36 600 -9295 Pb -1.5159 0.0223 65.2S 125.9W 0
07781 -36 1266 Jul 04 02:38:30 558 -9072 P -1.4464 0.1578 64.3S 111.8E 0
07824 -35 1284 Jul 14 10:08:18 518 -8849 P -1.3779 0.2915 63.4S 10.4W 0
07867 -34 1302 Jul 25 17:42:30 481 -8626 P -1.3129 0.4178 62.7S 133.4W 0

07909	-33	1320	Aug 05	01:20:21	447	-8403	P	-1.2510	0.5375	62.1S	102.9E	0
07950	-32	1338	Aug 16	09:03:11	414	-8180	P	-1.1933	0.6482	61.6S	21.9W	0
07991	-31	1356	Aug 26	16:52:10	384	-7957	P	-1.1410	0.7477	61.2S	148.1W	0
08032	-30	1374	Sep 07	00:48:07	355	-7734	P	-1.0949	0.8345	61.0S	84.0E	0
08073	-29	1392	Sep 17	08:51:03	328	-7511	P	-1.0548	0.9092	61.0S	45.5W	0
08113	-28	1410	Sep 28	17:00:48	303	-7288	P	-1.0206	0.9718	61.1S	176.7W	0
08153	-27	1428	Oct 09	01:18:10	279	-7065	Ts	-0.9930	1.0281	63.0S	61.0E	5 - 01m30s
08193	-26	1446	Oct 20	09:42:45	256	-6842	T	-0.9718	1.0258	65.8S	56.8W	13 386 01m25s
08233	-25	1464	Oct 30	18:13:13	234	-6619	T	-0.9560	1.0225	68.9S	176.0E	17 267 01m14s
08273	-24	1482	Nov 11	02:49:49	214	-6396	T	-0.9457	1.0189	72.5S	44.0E	18 203 01m03s
08313	-23	1500	Nov 21	11:30:31	195	-6173	T	-0.9393	1.0156	76.4S	91.4W	20 159 00m52s
08355	-22	1518	Dec 02	20:14:58	177	-5950	T	-0.9365	1.0124	80.4S	128.7E	20 125 00m41s
08396	-21	1536	Dec 13	04:59:20	161	-5727	T	-0.9343	1.0098	84.5S	17.2W	20 97 00m33s
08437	-20	1554	Dec 24	13:45:21	146	-5504	T	-0.9341	1.0075	87.5S	159.2E	20 75 00m25s
08478	-19	1573	Jan 03	22:28:35	133	-5281	H	-0.9328	1.0058	85.9S	54.1W	21 57 00m20s
08519	-18	1591	Jan 25	07:09:22	123	-5058	H	-0.9298	1.0047	81.9S	150.6E	21 45 00m16s
08560	-17	1609	Feb 04	15:43:43	108	-4835	H	-0.9224	1.0041	77.3S	7.2E	22 37 00m15s
08604	-16	1627	Feb 16	00:13:31	84	-4612	H	-0.9119	1.0040	72.3S	130.9W	24 34 00m15s
08649	-15	1645	Feb 26	08:35:06	56	-4389	H	-0.8956	1.0043	66.7S	94.3E	26 34 00m17s
08694	-14	1663	Mar 09	16:48:41	31	-4166	H	-0.8735	1.0049	60.5S	37.1W	29 35 00m21s
08740	-13	1681	Mar 20	00:52:59	13	-3943	H	-0.8445	1.0057	53.8S	165.3W	32 37 00m26s
08785	-12	1699	Mar 31	08:48:45	8	-3720	H	-0.8089	1.0065	46.8S	69.7E	36 38 00m32s
08830	-11	1717	Apr 11	16:34:40	10	-3497	H	-0.7660	1.0072	39.5S	52.1W	40 39 00m39s
08875	-10	1735	Apr 23	00:11:36	11	-3274	H	-0.7164	1.0077	32.2S	171.0W	44 38 00m44s
08921	-09	1753	May 03	07:39:40	13	-3051	H	-0.6601	1.0079	24.9S	73.0E	49 36 00m48s
08966	-08	1771	May 14	15:00:02	16	-2828	H	-0.5980	1.0076	17.8S	40.4W	53 33 00m49s
09012	-07	1789	May 24	22:11:58	16	-2605	H	-0.5297	1.0068	11.0S	151.0W	58 28 00m46s
09058	-06	1807	Jun 06	05:18:31	12	-2382	H	-0.4577	1.0055	4.7S	100.4E	63 21 00m38s

09103	-05	1825	Jun 16	12:19:03	10	-2159	H	-0.3812	1.0036	1.0N	6.0W	68	13	00m25s
09147	-04	1843	Jun 27	19:17:03	6	-1936	H	-0.3037	1.0011	5.9N	111.0W	72	4	00m07s
09190	-03	1861	Jul 08	02:10:26	8	-1713	A	-0.2231	0.9979	10.0N	145.8E	77	7	00m14s
09232	-02	1879	Jul 19	09:04:32	-5	-1490	Am	-0.1439	0.9942	13.0N	42.9E	82	20	00m39s
09274	-01	1897	Jul 29	15:56:58	-5	-1267	A	-0.0640	0.9899	15.3N	59.0W	86	35	01m05s
09316	00	1915	Aug 10	22:52:25	18	-1044	A	0.0124	0.9853	16.4N	161.4W	89	52	01m33s
09359	01	1933	Aug 21	05:49:11	24	-821	A	0.0869	0.9801	16.9N	95.9E	85	71	02m04s
09401	02	1951	Sep 01	12:51:51	30	-598	A	0.1557	0.9747	16.5N	8.5W	81	91	02m36s
09441	03	1969	Sep 11	19:58:59	40	-375	A	0.2201	0.9690	15.6N	114.1W	77	114	03m11s
09481	04	1987	Sep 23	03:12:22	56	-152	A	0.2787	0.9634	14.3N	138.4E	74	137	03m49s
09520	05	2005	Oct 03	10:32:47	65	71	A	0.3306	0.9576	12.9N	28.7E	71	162	04m32s
09560	06	2023	Oct 14	18:00:41	74	294	A	0.3753	0.9520	11.4N	83.1W	68	187	05m17s
09600	07	2041	Oct 25	01:36:22	86	517	A	0.4133	0.9467	9.9N	162.9E	66	213	06m07s
09641	08	2059	Nov 05	09:18:15	113	740	A	0.4454	0.9417	8.7N	47.1E	63	238	07m00s
09682	09	2077	Nov 15	17:07:56	152	963	A	0.4705	0.9371	7.8N	70.8W	62	262	07m54s
09723	10	2095	Nov 27	01:02:57	193	1186	A	0.4903	0.9330	7.2N	169.8E	61	285	08m47s
09764	11	2113	Dec 08	09:03:27	236	1409	A	0.5049	0.9296	7.1N	48.9E	60	304	09m35s
09804	12	2131	Dec 19	17:06:51	281	1632	A	0.5165	0.9267	7.6N	72.8W	59	321	10m14s
09846	13	2149	Dec 30	01:13:04	328	1855	A	0.5253	0.9245	8.6N	164.7E	58	334	10m42s
09888	14	2168	Jan 10	09:19:03	367	2078	A	0.5337	0.9230	10.3N	42.1E	58	344	10m55s
09932	15	2186	Jan 20	17:23:44	408	2301	A	0.5426	0.9221	12.8N	80.3W	57	350	10m53s
09977	16	2204	Feb 02	01:25:26	451	2524	A	0.5535	0.9218	16.0N	157.8E	56	353	10m38s
10021	17	2222	Feb 12	09:23:18	497	2747	A	0.5669	0.9220	20.0N	36.7E	55	355	10m14s
10065	18	2240	Feb 23	17:14:11	544	2970	A	0.5859	0.9228	24.7N	83.0W	54	356	09m41s
10110	19	2258	Mar 06	00:58:23	593	3193	A	0.6101	0.9239	30.2N	158.8E	52	359	09m04s
10155	20	2276	Mar 16	08:34:03	645	3416	A	0.6411	0.9253	36.4N	42.3E	50	362	08m23s
10201	21	2294	Mar 27	16:02:23	698	3639	A	0.6776	0.9269	43.2N	72.6W	47	370	07m42s
10246	22	2312	Apr 07	23:19:32	754	3862	A	0.7231	0.9286	50.8N	174.7E	43	385	07m00s

10291	23	2330	Apr 19	06:29:25	811	4085	A	0.7742	0.9302	59.0N	62.9E	39	412	06m19s
10337	24	2348	Apr 29	13:29:00	871	4308	A	0.8338	0.9315	68.1N	48.8W	33	466	05m40s
10382	25	2366	May 10	20:22:08	933	4531	A	0.8981	0.9323	77.9N	169.5W	26	583	05m03s
10426	26	2384	May 21	03:05:26	997	4754	A	0.9701	0.9317	80.8N	0.8W	13	1115	04m28s
10470	27	2402	Jun 01	09:44:38	1063	4977	P	1.0452	0.8834	67.8N	135.9W	0		
10513	28	2420	Jun 11	16:17:02	1131	5200	P	1.1256	0.7470	66.8N	115.6E	0		
10556	29	2438	Jun 22	22:46:47	1201	5423	P	1.2079	0.6068	65.8N	8.2E	0		
10599	30	2456	Jul 03	05:13:16	1273	5646	P	1.2925	0.4621	64.9N	98.1W	0		
10641	31	2474	Jul 14	11:40:30	1347	5869	P	1.3764	0.3182	64.0N	155.9E	0		
10683	32	2492	Jul 24	18:08:32	1424	6092	P	1.4594	0.1755	63.2N	49.8E	0		
10725	33	2510	Aug 06	00:38:56	1502	6315	Pe	1.5405	0.0362	62.6N	56.5W	0		

SAROS SERIES

135

Saros series 135 contains 71 solar eclipses.

[illegible]

ECLIPSE

07934	-34	1331	Jul 05	22:46:38	427	-8268	Pb	1.5532	0.0063	67.8N	12.6E	0
07975	-33	1349	Jul 16	05:25:45	396	-8045	P	1.4782	0.1384	68.8N	98.7W	0
08016	-32	1367	Jul 27	12:05:47	366	-7822	P	1.4043	0.2679	69.7N	149.3E	0
08057	-31	1385	Aug 06	18:51:40	339	-7599	P	1.3352	0.3878	70.6N	35.3E	0
08097	-30	1403	Aug 18	01:41:42	313	-7376	P	1.2697	0.5006	71.3N	80.4W	0
08137	-29	1421	Aug 28	08:38:54	288	-7153	P	1.2101	0.6025	71.8N	161.6E	0
08177	-28	1439	Sep 08	15:42:20	265	-6930	P	1.1555	0.6947	72.1N	41.6E	0
08217	-27	1457	Sep 18	22:54:59	243	-6707	P	1.1083	0.7737	72.1N	80.8W	0
08257	-26	1475	Sep 30	06:15:14	222	-6484	P	1.0676	0.8411	71.9N	154.9E	0
08297	-25	1493	Oct 10	13:43:35	202	-6261	P	1.0334	0.8969	71.4N	28.8E	0
08338	-24	1511	Oct 21	21:19:49	184	-6038	A+	1.0058	0.9416	70.7N	98.6W	0
08380	-23	1529	Nov 01	05:04:11	167	-5815	An	0.9846	0.9119	61.7N	122.8E	9 - 08m09s
08421	-22	1547	Nov 12	12:54:24	152	-5592	A	0.9683	0.9106	55.5N	4.7W	14 1419 08m59s
08462	-21	1565	Nov 22	20:49:55	138	-5369	A	0.9564	0.9092	51.4N	130.5W	16 1220 09m37s
08503	-20	1583	Dec 14	04:48:39	127	-5146	A	0.9471	0.9083	48.5N	104.1E	18 1116 10m03s
08544	-19	1601	Dec 24	12:50:31	116	-4923	A	0.9402	0.9078	46.6N	21.5W	19 1051 10m14s
08586	-18	1620	Jan 04	20:51:05	94	-4700	A	0.9321	0.9081	45.0N	146.5W	21 976 10m13s
08630	-17	1638	Jan 15	04:51:53	67	-4477	A	0.9242	0.9090	44.0N	88.9E	22 907 10m00s
08676	-16	1656	Jan 26	12:48:10	40	-4254	A	0.9122	0.9106	43.2N	34.1W	24 820 09m38s
08722	-15	1674	Feb 05	20:41:35	19	-4031	A	0.8979	0.9129	42.8N	155.7W	26 736 09m09s
08767	-14	1692	Feb 17	04:26:56	8	-3808	A	0.8765	0.9159	42.4N	85.6E	28 644 08m36s
08812	-13	1710	Feb 28	12:07:29	9	-3585	A	0.8509	0.9194	42.5N	31.2W	31 562 08m00s
08857	-12	1728	Mar 10	19:38:56	10	-3362	A	0.8172	0.9233	42.8N	144.6W	35 485 07m25s
08903	-11	1746	Mar 22	03:02:49	12	-3139	A	0.7771	0.9277	43.5N	104.7E	39 419 06m51s
08948	-10	1764	Apr 01	10:17:15	15	-2916	A	0.7288	0.9323	44.2N	2.5W	43 361 06m20s
08994	-09	1782	Apr 12	17:24:47	17	-2693	A	0.6745	0.9370	45.1N	107.1W	47 311 05m51s

09039	-08	1800	Apr 24	00:24:00	13	-2470	A	0.6125	0.9417	45.7N	151.3E	52	269	05m27s
09084	-07	1818	May 05	07:15:49	12	-2247	A	0.5440	0.9464	45.8N	52.5E	57	233	05m05s
09129	-06	1836	May 15	14:01:39	5	-2024	A	0.4700	0.9509	45.1N	44.4W	62	203	04m47s
09173	-05	1854	May 26	20:42:53	7	-1801	A	0.3918	0.9551	43.3N	140.1W	67	178	04m32s
09216	-04	1872	Jun 06	03:20:03	-1	-1578	A	0.3095	0.9590	40.5N	124.8E	72	157	04m20s
09258	-03	1890	Jun 17	09:55:05	-6	-1355	A	0.2246	0.9625	36.5N	29.3E	77	140	04m09s
09300	-02	1908	Jun 28	16:29:51	8	-1132	A	0.1389	0.9655	31.4N	67.2W	82	126	04m00s
09342	-01	1926	Jul 09	23:06:02	24	-909	A	0.0538	0.9680	25.6N	165.1W	87	115	03m51s
09385	00	1944	Jul 20	05:43:13	27	-686	A	-0.0314	0.9700	19.0N	95.7E	88	108	03m42s
09425	01	1962	Jul 31	12:25:33	34	-463	Am	-0.1130	0.9716	12.0N	5.7W	84	103	03m33s
09465	02	1980	Aug 10	19:12:21	51	-240	A	-0.1915	0.9727	4.6N	108.9W	79	100	03m23s
09504	03	1998	Aug 22	02:07:11	63	-17	A	-0.2644	0.9734	3.0S	145.4E	75	99	03m14s
09544	04	2016	Sep 01	09:08:02	70	206	A	-0.3330	0.9736	10.7S	37.8E	70	100	03m06s
09584	05	2034	Sep 12	16:19:28	81	429	A	-0.3936	0.9736	18.2S	72.6W	67	102	02m58s
09624	06	2052	Sep 22	23:39:10	98	652	A	-0.4480	0.9734	25.7S	175.0E	63	106	02m51s
09666	07	2070	Oct 04	07:08:57	136	875	A	-0.4950	0.9731	32.8S	60.4E	60	110	02m44s
09707	08	2088	Oct 14	14:48:05	177	1098	A	-0.5349	0.9727	39.7S	56.0W	57	115	02m38s
09748	09	2106	Oct 26	22:37:40	219	1321	A	-0.5671	0.9725	45.9S	174.1W	55	119	02m32s
09789	10	2124	Nov 06	06:36:34	263	1544	A	-0.5921	0.9724	51.6S	66.8E	53	123	02m26s
09830	11	2142	Nov 17	14:43:08	309	1767	A	-0.6117	0.9727	56.4S	52.4W	52	124	02m19s
09872	12	2160	Nov 27	22:58:32	351	1990	A	-0.6247	0.9734	60.1S	171.6W	51	123	02m12s
09915	13	2178	Dec 09	07:20:02	392	2213	A	-0.6338	0.9745	62.4S	69.9E	50	118	02m03s
09959	14	2196	Dec 19	15:47:09	434	2436	A	-0.6387	0.9761	63.1S	48.6W	50	111	01m53s
10003	15	2215	Jan 01	00:16:36	478	2659	A	-0.6427	0.9783	62.3S	168.0W	50	101	01m41s
10047	16	2233	Jan 11	08:49:17	525	2882	A	-0.6447	0.9811	60.0S	70.4E	50	88	01m28s
10092	17	2251	Jan 22	17:21:41	573	3105	A	-0.6480	0.9844	56.9S	53.2W	49	72	01m12s
10137	18	2269	Feb 02	01:53:06	624	3328	A	-0.6529	0.9883	53.2S	178.2W	49	54	00m54s
10183	19	2287	Feb 13	10:21:25	677	3551	A	-0.6613	0.9926	49.4S	56.3E	48	34	00m35s

10228	20	2305	Feb 24	18:46:09	732	3774	A	-0.6732	0.9973	45.7S	69.3W	47	13	00m13s
10273	21	2323	Mar 08	03:05:10	788	3997	H	-0.6906	1.0023	42.4S	166.1E	46	11	00m11s
10318	22	2341	Mar 18	11:18:20	847	4220	H	-0.7137	1.0075	39.8S	42.6E	44	36	00m36s
10364	23	2359	Mar 29	19:24:46	908	4443	T	-0.7429	1.0128	37.9S	79.3W	42	64	01m02s
10408	24	2377	Apr 09	03:25:10	971	4666	T	-0.7779	1.0180	37.1S	160.2E	39	96	01m28s
10452	25	2395	Apr 20	11:17:15	1037	4889	T	-0.8203	1.0230	37.7S	41.9E	35	134	01m52s
10495	26	2413	Apr 30	19:03:57	1104	5112	T	-0.8677	1.0274	40.0S	75.0W	30	183	02m13s
10538	27	2431	May 12	02:43:30	1173	5335	T	-0.9214	1.0310	44.8S	170.4E	22	267	02m27s
10581	28	2449	May 22	10:19:15	1244	5558	T	-0.9790	1.0328	54.4S	59.1E	11	567	02m24s
10624	29	2467	Jun 02	17:48:24	1318	5781	P	-1.0425	0.9315	64.5S	50.8W	0		
10666	30	2485	Jun 13	01:16:18	1393	6004	P	-1.1075	0.8095	65.4S	172.3W	0		
10708	31	2503	Jun 25	08:40:22	1471	6227	P	-1.1759	0.6800	66.4S	66.7E	0		
10749	32	2521	Jul 05	16:04:53	1551	6450	P	-1.2445	0.5492	67.4S	54.7W	0		
10790	33	2539	Jul 16	23:27:49	1632	6673	P	-1.3148	0.4143	68.3S	176.3W	0		
10830	34	2557	Jul 27	06:54:08	1716	6896	P	-1.3827	0.2835	69.3S	60.9E	0		
10870	35	2575	Aug 07	14:21:38	1802	7119	P	-1.4499	0.1541	70.1S	62.9W	0		
10910	36	2593	Aug 17	21:53:04	1890	7342	Pe	-1.5141	0.0303	70.8S	171.9E	0		

SAROS SERIES

136

Saros series 136 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08000	-35	1360 Jun 14	05:56:04	378	-7910	Pb	-1.5227	0.0495	65.8S	78.2E	0		
08041	-34	1378 Jun 25	12:45:16	349	-7687	P	-1.4392	0.1976	64.8S	34.2W	0		
08082	-33	1396 Jul 05	19:37:40	323	-7464	P	-1.3568	0.3449	63.9S	147.2W	0		
08122	-32	1414 Jul 17	02:35:03	298	-7241	P	-1.2770	0.4881	63.1S	99.0E	0		
08162	-31	1432 Jul 27	09:39:02	274	-7018	P	-1.2011	0.6250	62.4S	16.3W	0		
08202	-30	1450 Aug 07	16:48:49	251	-6795	P	-1.1286	0.7560	61.8S	132.8W	0		
08241	-29	1468 Aug 18	00:08:08	230	-6572	P	-1.0627	0.8753	61.3S	108.4E	0		
08281	-28	1486 Aug 29	07:34:56	210	-6349	P	-1.0018	0.9856	61.0S	12.1W	0		
08322	-27	1504 Sep 08	15:12:15	191	-6126	A	-0.9486	0.9924	55.3S	102.6W	18	83	00m32s
08364	-26	1522 Sep 19	22:57:33	173	-5903	A	-0.9011	0.9946	53.9S	146.1E	25	42	00m23s
08405	-25	1540 Sep 30	06:54:11	157	-5680	A	-0.8620	0.9960	54.6S	29.2E	30	27	00m17s
08446	-24	1558 Oct 11	14:58:55	143	-5457	A	-0.8289	0.9971	56.5S	90.3W	34	18	00m12s
08487	-23	1576 Oct 21	23:13:06	131	-5234	A	-0.8031	0.9981	59.2S	147.9E	36	11	00m08s
08528	-22	1594 Nov 12	07:34:49	121	-5011	A	-0.7829	0.9991	62.4S	25.1E	38	5	00m04s
08568	-21	1612 Nov 22	16:04:35	104	-4788	H	-0.7691	1.0002	65.7S	98.4W	39	1	00m01s
08612	-20	1630 Dec 04	00:38:59	78	-4565	H	-0.7585	1.0017	68.7S	139.6E	40	9	00m07s
08657	-19	1648 Dec 14	09:17:55	51	-4342	H	-0.7510	1.0035	70.9S	19.6E	41	18	00m14s
08703	-18	1666 Dec 25	17:59:16	27	-4119	H	-0.7452	1.0058	71.6S	98.3W	42	30	00m24s
08749	-17	1685 Jan 05	02:42:50	11	-3896	H	-0.7409	1.0086	70.7S	143.1E	42	44	00m35s
08794	-16	1703 Jan 17	11:24:25	8	-3673	H2	-0.7345	1.0120	67.9S	22.2E	42	61	00m50s
08839	-15	1721 Jan 27	20:05:11	10	-3450	T	-0.7269	1.0158	64.0S	102.4W	43	79	01m07s

08885	-14	1739	Feb 08	04:41:13	11	-3227	T	-0.7149	1.0203	59.2S	131.0E	44	99	01m27s
08931	-13	1757	Feb 18	13:14:12	14	-3004	T	-0.6999	1.0251	53.8S	2.9E	45	119	01m51s
08976	-12	1775	Mar 01	21:39:20	16	-2781	T	-0.6783	1.0304	47.9S	124.8W	47	139	02m20s
09022	-11	1793	Mar 12	06:00:07	16	-2558	T	-0.6524	1.0359	41.7S	107.8E	49	158	02m51s
09067	-10	1811	Mar 24	14:12:13	12	-2335	T	-0.6190	1.0416	35.2S	18.0W	52	176	03m27s
09112	-09	1829	Apr 03	22:18:36	8	-2112	T	-0.5803	1.0474	28.5S	142.6W	54	192	04m05s
09156	-08	1847	Apr 15	06:16:13	7	-1889	T	-0.5339	1.0530	21.6S	95.0E	58	206	04m44s
09199	-07	1865	Apr 25	14:08:34	6	-1666	T	-0.4826	1.0584	14.8S	25.8W	61	219	05m23s
09241	-06	1883	May 06	21:53:49	-6	-1443	T	-0.4250	1.0634	8.1S	144.6W	65	229	05m58s
09283	-05	1901	May 18	05:33:48	-1	-1220	T	-0.3626	1.0680	1.7S	98.4E	69	238	06m29s
09326	-04	1919	May 29	13:08:55	21	-997	T	-0.2955	1.0719	4.4N	16.7W	73	244	06m51s
09369	-03	1937	Jun 08	20:41:02	24	-774	T	-0.2253	1.0751	9.9N	130.5W	77	250	07m04s
09410	-02	1955	Jun 20	04:10:42	31	-551	T	-0.1528	1.0776	14.8N	117.0E	81	254	07m08s
09450	-01	1973	Jun 30	11:38:41	44	-328	T	-0.0785	1.0792	18.8N	5.6E	86	256	07m04s
09489	00	1991	Jul 11	19:07:01	58	-105	Tm	-0.0041	1.0800	22.0N	105.2W	90	258	06m53s
09528	01	2009	Jul 22	02:36:25	66	118	T	0.0698	1.0799	24.2N	144.1E	86	258	06m39s
09568	02	2027	Aug 02	10:07:50	76	341	T	0.1421	1.0790	25.5N	33.2E	82	258	06m23s
09608	03	2045	Aug 12	17:42:39	89	564	T	0.2116	1.0774	25.9N	78.5W	78	256	06m06s
09649	04	2063	Aug 24	01:22:11	121	787	T	0.2771	1.0750	25.6N	168.4E	74	252	05m49s
09690	05	2081	Sep 03	09:07:31	160	1010	T	0.3378	1.0720	24.6N	53.6E	70	247	05m33s
09732	06	2099	Sep 14	16:57:53	202	1233	T	0.3942	1.0684	23.4N	62.8W	67	241	05m18s
09773	07	2117	Sep 26	00:55:42	245	1456	T	0.4442	1.0645	21.9N	178.4E	64	233	05m03s
09814	08	2135	Oct 07	09:00:03	291	1679	T	0.4884	1.0603	20.3N	57.6E	61	224	04m50s
09856	09	2153	Oct 17	17:12:18	336	1902	T	0.5259	1.0560	18.8N	65.7W	58	214	04m36s
09898	10	2171	Oct 29	01:31:03	375	2125	T	0.5577	1.0516	17.6N	169.1E	56	203	04m23s
09942	11	2189	Nov 08	09:57:28	417	2348	T	0.5830	1.0474	16.5N	41.6E	54	192	04m10s
09987	12	2207	Nov 20	18:30:26	461	2571	T	0.6027	1.0434	15.8N	87.8W	53	180	03m56s
10030	13	2225	Dec 01	03:08:36	506	2794	T	0.6178	1.0398	15.4N	141.4E	52	169	03m43s

10074	14	2243	Dec 12	11:52:14	554	3017	T	0.6284	1.0365	15.5N	9.0E	51	157	03m30s
10119	15	2261	Dec 22	20:38:50	604	3240	T	0.6360	1.0337	16.1N	124.2W	50	147	03m17s
10164	16	2280	Jan 03	05:28:11	656	3463	T	0.6414	1.0314	17.2N	101.9E	50	138	03m04s
10210	17	2298	Jan 13	14:16:27	710	3686	T	0.6474	1.0296	19.0N	31.9W	50	131	02m52s
10255	18	2316	Jan 25	23:05:17	766	3909	T	0.6526	1.0282	21.4N	166.0W	49	126	02m42s
10301	19	2334	Feb 05	07:50:29	824	4132	T	0.6603	1.0272	24.6N	60.8E	49	122	02m33s
10347	20	2352	Feb 16	16:32:06	884	4355	T	0.6709	1.0266	28.5N	71.8W	48	121	02m24s
10392	21	2370	Feb 27	01:07:02	946	4578	T	0.6865	1.0262	33.2N	157.0E	46	121	02m17s
10435	22	2388	Mar 09	09:36:21	1011	4801	T	0.7064	1.0260	38.5N	27.0E	45	124	02m10s
10479	23	2406	Mar 20	17:57:23	1077	5024	T	0.7327	1.0258	44.5N	101.3W	43	128	02m03s
10522	24	2424	Mar 31	02:10:10	1146	5247	T	0.7652	1.0254	51.3N	131.9E	40	133	01m55s
10565	25	2442	Apr 11	10:14:04	1216	5470	T	0.8046	1.0248	58.7N	6.2E	36	142	01m45s
10608	26	2460	Apr 21	18:09:49	1289	5693	T	0.8503	1.0236	66.8N	119.8W	31	154	01m34s
10650	27	2478	May 03	01:55:59	1363	5916	T	0.9034	1.0218	75.7N	107.7E	25	176	01m20s
10692	28	2496	May 13	09:34:25	1440	6139	T	0.9622	1.0185	81.0N	70.4W	15	243	01m02s
10734	29	2514	May 25	17:04:32	1519	6362	P	1.0272	0.9507	68.5N	123.2E	0		
10774	30	2532	Jun 05	00:28:58	1600	6585	P	1.0962	0.8224	67.5N	1.3E	0		
10814	31	2550	Jun 16	07:45:35	1683	6808	P	1.1708	0.6840	66.4N	118.1W	0		
10854	32	2568	Jun 26	14:58:55	1768	7031	P	1.2472	0.5426	65.5N	123.7E	0		
10894	33	2586	Jul 07	22:07:07	1855	7254	P	1.3270	0.3957	64.5N	7.2E	0		
10935	34	2604	Jul 19	05:14:31	1944	7477	P	1.4062	0.2509	63.7N	108.8W	0		
10976	35	2622	Jul 30	12:18:09	2035	7700	Pe	1.4872	0.1039	63.0N	136.4E	0		

SAROS SERIES

137

Saros series 137 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08066	-36	1389 May 25 16:48:11	333	-7552	Pb	1.4993	0.0549	64.4N	139.8E	0			
08106	-35	1407 Jun 06 00:16:35	307	-7329	P	1.4296	0.1902	65.2N	17.8E	0			
08146	-34	1425 Jun 16 07:44:06	283	-7106	P	1.3592	0.3271	66.2N	104.4W	0			
08186	-33	1443 Jun 27 15:11:10	260	-6883	P	1.2887	0.4640	67.2N	133.2E	0			
08226	-32	1461 Jul 07 22:39:29	238	-6660	P	1.2191	0.5989	68.2N	10.0E	0			
08266	-31	1479 Jul 19 06:09:16	217	-6437	P	1.1509	0.7302	69.1N	114.1W	0			
08306	-30	1497 Jul 29 13:43:13	198	-6214	P	1.0863	0.8539	70.0N	120.2E	0			
08348	-29	1515 Aug 09 21:21:25	180	-5991	P	1.0258	0.9686	70.8N	7.1W	0			
08389	-28	1533 Aug 20 05:04:01	164	-5768	T	0.9693	1.0479	73.7N	178.3E	13	678	02m40s	
08430	-27	1551 Aug 31 12:53:01	149	-5545	T	0.9185	1.0460	65.7N	28.4E	23	391	02m52s	
08471	-26	1569 Sep 10 20:48:16	135	-5322	T	0.8732	1.0428	57.4N	103.4W	29	293	02m55s	
08512	-25	1587 Oct 02 04:51:25	125	-5099	T	0.8352	1.0387	50.0N	128.3E	33	235	02m51s	
08553	-24	1605 Oct 12 12:59:58	112	-4876	T	0.8022	1.0344	43.4N	0.6E	36	193	02m43s	
08595	-23	1623 Oct 23 21:17:10	88	-4653	T	0.7770	1.0298	37.8N	128.0W	39	159	02m31s	

08640	-22	1641	Nov 03	05:40:09	61	-4430	T	0.7570	1.0252	33.0N	102.5E	41	130	02m15s
08685	-21	1659	Nov 14	14:10:08	35	-4207	T	0.7432	1.0208	29.2N	28.2W	42	106	01m56s
08731	-20	1677	Nov 24	22:44:03	16	-3984	T	0.7332	1.0166	26.3N	159.6W	43	84	01m36s
08776	-19	1695	Dec 06	07:23:18	8	-3761	T	0.7280	1.0128	24.3N	67.9E	43	64	01m16s
08821	-18	1713	Dec 17	16:04:20	9	-3538	H	0.7249	1.0094	23.1N	64.8W	43	47	00m56s
08867	-17	1731	Dec 29	00:46:53	11	-3315	H	0.7234	1.0065	22.7N	162.2E	44	32	00m39s
08913	-16	1750	Jan 08	09:28:43	13	-3092	H	0.7217	1.0041	23.0N	29.3E	44	20	00m24s
08958	-15	1768	Jan 19	18:09:29	16	-2869	H	0.7195	1.0022	23.9N	103.2W	44	11	00m13s
09004	-14	1786	Jan 30	02:45:26	17	-2646	H	0.7140	1.0009	25.1N	125.5E	44	5	00m05s
09049	-13	1804	Feb 11	11:16:33	12	-2423	H	0.7053	1.0000	26.7N	4.5W	45	0	00m00s
09094	-12	1822	Feb 21	19:40:40	11	-2200	A	0.6914	0.9996	28.6N	132.3W	46	2	00m02s
09138	-11	1840	Mar 04	03:58:22	5	-1977	A	0.6728	0.9995	30.6N	101.7E	48	2	00m03s
09181	-10	1858	Mar 15	12:05:28	7	-1754	A	0.6461	0.9996	32.7N	20.9W	50	2	00m02s
09224	-09	1876	Mar 25	20:05:06	-4	-1531	A	0.6142	0.9999	34.8N	141.1W	52	1	00m01s
09266	-08	1894	Apr 06	03:53:41	-6	-1308	H	0.5740	1.0001	36.7N	102.4E	55	1	00m01s
09308	-07	1912	Apr 17	11:34:22	14	-1085	H	0.5280	1.0003	38.4N	11.3W	58	1	00m02s
09351	-06	1930	Apr 28	19:03:34	24	-862	H	0.4730	1.0003	39.4N	121.2W	62	1	00m01s
09394	-05	1948	May 09	02:26:04	28	-639	A	0.4133	0.9999	39.8N	131.2E	65	0	00m00s
09434	-04	1966	May 20	09:39:02	37	-416	A	0.3467	0.9991	39.2N	26.4E	70	3	00m05s
09474	-03	1984	May 30	16:45:41	54	-193	A	0.2755	0.9980	37.5N	76.7W	74	7	00m11s
09513	-02	2002	Jun 10	23:45:22	64	30	A	0.1993	0.9962	34.5N	178.6W	78	13	00m23s
09553	-01	2020	Jun 21	06:41:15	72	253	Am	0.1209	0.9940	30.5N	79.7E	83	21	00m38s
09593	00	2038	Jul 02	13:32:55	84	476	A	0.0398	0.9911	25.4N	21.9W	88	31	01m00s
09633	01	2056	Jul 12	20:21:59	106	699	A	-0.0426	0.9878	19.4N	123.7W	88	43	01m26s
09674	02	2074	Jul 24	03:10:32	145	922	A	-0.1242	0.9838	12.8N	133.7E	83	58	01m57s
09715	03	2092	Aug 03	09:59:33	185	1145	A	-0.2044	0.9794	5.6N	30.3E	78	75	02m31s
09756	04	2110	Aug 15	16:50:45	228	1368	A	-0.2819	0.9746	2.0S	74.3W	74	94	03m07s
09797	05	2128	Aug 25	23:44:34	272	1591	A	-0.3562	0.9694	9.8S	180.0E	69	117	03m41s

09839	06	2146	Sep 06	06:44:00	319	1814	A	-0.4249	0.9639	17.8S	72.6E	65	143	04m13s
09881	07	2164	Sep 16	13:48:20	360	2037	A	-0.4885	0.9583	25.7S	36.3W	61	172	04m42s
09925	08	2182	Sep 27	20:58:45	400	2260	A	-0.5461	0.9527	33.5S	146.7W	57	205	05m05s
09969	09	2200	Oct 09	04:16:21	443	2483	A	-0.5972	0.9470	41.1S	101.3E	53	241	05m25s
10013	10	2218	Oct 20	11:41:56	488	2706	A	-0.6411	0.9416	48.4S	12.1W	50	280	05m41s
10057	11	2236	Oct 30	19:15:15	535	2929	A	-0.6779	0.9365	55.2S	126.4W	47	321	05m54s
10101	12	2254	Nov 11	02:55:16	584	3152	A	-0.7086	0.9317	61.4S	119.3E	45	363	06m05s
10146	13	2272	Nov 21	10:42:52	635	3375	A	-0.7327	0.9275	66.8S	5.9E	43	402	06m15s
10192	14	2290	Dec 02	18:36:41	688	3598	A	-0.7515	0.9237	70.9S	104.7W	41	439	06m23s
10237	15	2308	Dec 14	02:34:52	743	3821	A	-0.7662	0.9207	73.4S	148.6E	40	470	06m31s
10282	16	2326	Dec 25	10:36:53	801	4044	A	-0.7774	0.9182	73.6S	43.3E	39	496	06m39s
10328	17	2345	Jan 04	18:40:23	860	4267	A	-0.7872	0.9165	71.9S	64.6W	38	517	06m45s
10374	18	2363	Jan 16	02:45:07	922	4490	A	-0.7955	0.9154	68.8S	177.6W	37	532	06m52s
10418	19	2381	Jan 26	10:46:38	985	4713	A	-0.8064	0.9149	65.3S	66.8E	36	546	06m57s
10462	20	2399	Feb 06	18:46:44	1051	4936	A	-0.8180	0.9150	61.6S	51.0W	35	557	07m01s
10505	21	2417	Feb 17	02:40:42	1118	5159	A	-0.8345	0.9155	58.3S	168.3W	33	574	07m04s
10548	22	2435	Feb 28	10:29:45	1188	5382	A	-0.8546	0.9165	55.4S	75.0E	31	599	07m05s
10591	23	2453	Mar 10	18:09:42	1260	5605	A	-0.8820	0.9177	53.6S	39.1W	28	647	07m04s
10633	24	2471	Mar 22	01:43:37	1334	5828	A	-0.9141	0.9190	52.9S	151.3W	24	738	07m00s
10675	25	2489	Apr 01	09:07:55	1410	6051	A	-0.9541	0.9200	54.4S	101.3E	17	997	06m50s
10717	26	2507	Apr 13	16:23:43	1488	6274	A-	-1.0006	0.9539	61.3S	13.5E	0		
10758	27	2525	Apr 23	23:30:15	1568	6497	P	-1.0544	0.8646	61.8S	101.6W	0		
10799	28	2543	May 05	06:29:19	1650	6720	P	-1.1140	0.7648	62.3S	145.1E	0		
10839	29	2561	May 15	13:20:16	1734	6943	P	-1.1801	0.6534	63.1S	33.6E	0		
10879	30	2579	May 26	20:04:28	1820	7166	P	-1.2516	0.5320	63.9S	76.4W	0		
10919	31	2597	Jun 06	02:43:07	1909	7389	P	-1.3272	0.4029	64.8S	174.7E	0		
10960	32	2615	Jun 18	09:17:56	1999	7612	P	-1.4053	0.2689	65.7S	66.4E	0		
11001	33	2633	Jun 28	15:48:41	2092	7835	Pe	-1.4864	0.1291	66.7S	41.2W	0		

SAROS SERIES

138

Saros series 138 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

08250	-33	1472 Jun 06	20:20:31	225	-6525	Pb	-1.5448	0.0209	66.4S	132.2W	0		
08290	-32	1490 Jun 18	02:55:30	206	-6302	P	-1.4661	0.1592	65.4S	118.7E	0		
08331	-31	1508 Jun 28	09:28:44	187	-6079	P	-1.3860	0.2993	64.5S	10.4E	0		
08373	-30	1526 Jul 09	16:02:42	170	-5856	P	-1.3063	0.4379	63.6S	97.8W	0		
08414	-29	1544 Jul 19	22:38:22	154	-5633	P	-1.2281	0.5730	62.8S	153.9E	0		
08455	-28	1562 Jul 31	05:16:46	140	-5410	P	-1.1522	0.7034	62.2S	45.1E	0		
08496	-27	1580 Aug 10	12:00:05	129	-5187	P	-1.0802	0.8258	61.6S	64.7W	0		
08537	-26	1598 Aug 31	18:48:48	119	-4964	A-	-1.0126	0.9398	61.2S	175.6W	0		
08578	-25	1616 Sep 11	01:44:06	99	-4741	A	-0.9505	0.9319	54.1S	102.3E	18	807	05m42s
08622	-24	1634 Sep 22	08:47:04	72	-4518	A	-0.8947	0.9300	51.5S	2.3E	26	572	06m03s

08667	-23	1652	Oct 02	15:58:30	45	-4295	A	-0.8458	0.9275	51.2S	102.7W	32	497	06m19s
08713	-22	1670	Oct 13	23:19:00	23	-4072	A	-0.8043	0.9247	52.4S	149.1E	36	467	06m34s
08758	-21	1688	Oct 24	06:46:41	9	-3849	A	-0.7686	0.9221	54.4S	39.2E	39	453	06m49s
08803	-20	1706	Nov 05	14:23:57	9	-3626	A	-0.7407	0.9195	57.0S	72.6W	42	449	07m02s
08848	-19	1724	Nov 15	22:07:38	10	-3403	A	-0.7183	0.9174	59.9S	175.0E	44	448	07m15s
08894	-18	1742	Nov 27	05:58:59	12	-3180	A	-0.7019	0.9156	62.6S	62.2E	45	450	07m26s
08940	-17	1760	Dec 07	13:53:44	15	-2957	A	-0.6881	0.9144	64.7S	49.4W	46	451	07m36s
08986	-16	1778	Dec 18	21:53:54	17	-2734	A	-0.6788	0.9137	65.8S	160.6W	47	450	07m44s
09032	-15	1796	Dec 29	05:54:58	15	-2511	A	-0.6703	0.9136	65.5S	88.6E	48	446	07m51s
09077	-14	1815	Jan 10	13:57:06	12	-2288	A	-0.6626	0.9143	63.7S	23.6W	48	438	07m55s
09122	-13	1833	Jan 20	21:56:55	6	-2065	A	-0.6530	0.9155	60.6S	137.4W	49	426	07m59s
09166	-12	1851	Feb 01	05:54:27	7	-1842	A	-0.6413	0.9175	56.4S	106.9E	50	409	08m01s
09208	-11	1869	Feb 11	13:46:39	2	-1619	A	-0.6251	0.9201	51.3S	9.7W	51	387	08m02s
09250	-10	1887	Feb 22	21:33:04	-6	-1396	A	-0.6040	0.9232	45.7S	126.5W	53	362	08m01s
09292	-09	1905	Mar 06	05:12:26	4	-1173	A	-0.5768	0.9269	39.5S	117.4E	55	334	07m58s
09334	-08	1923	Mar 17	12:44:58	23	-950	A	-0.5438	0.9310	33.0S	2.4E	57	305	07m51s
09377	-07	1941	Mar 27	20:08:08	25	-727	A	-0.5025	0.9355	26.2S	110.9W	60	276	07m41s
09418	-06	1959	Apr 08	03:24:08	33	-504	A	-0.4546	0.9401	19.1S	137.6E	63	247	07m26s
09458	-05	1977	Apr 18	10:31:30	48	-281	A	-0.3990	0.9449	11.9S	28.3E	66	220	07m04s
09497	-04	1995	Apr 29	17:33:21	61	-58	A	-0.3382	0.9497	4.8S	79.4W	70	196	06m37s
09537	-03	2013	May 10	00:26:20	68	165	A	-0.2694	0.9544	2.2N	175.5E	74	173	06m03s
09577	-02	2031	May 21	07:16:04	78	388	A	-0.1970	0.9589	8.9N	71.7E	79	152	05m26s
09617	-01	2049	May 31	13:59:59	92	611	A	-0.1187	0.9631	15.3N	29.9W	83	134	04m45s
09658	00	2067	Jun 11	20:42:26	129	834	A	-0.0387	0.9670	21.0N	130.2W	88	119	04m05s
09699	01	2085	Jun 22	03:21:16	169	1057	A	0.0452	0.9704	26.2N	131.3E	87	106	03m29s
09740	02	2103	Jul 04	10:01:48	211	1280	Am	0.1285	0.9734	30.3N	33.2E	82	96	02m57s
09781	03	2121	Jul 14	16:42:39	255	1503	A	0.2125	0.9758	33.6N	64.3W	78	88	02m32s
09822	04	2139	Jul 25	23:26:33	300	1726	A	0.2946	0.9778	35.8N	161.9W	73	83	02m13s

09864	05	2157	Aug 05	06:14:19	344	1949	A	0.3743	0.9792	37.1N	99.6E	68	80	01m59s
09907	06	2175	Aug 16	13:08:17	384	2172	A	0.4497	0.9802	37.6N	0.5W	63	78	01m50s
09951	07	2193	Aug 26	20:09:20	426	2395	A	0.5200	0.9806	37.4N	102.9W	58	80	01m45s
09996	08	2211	Sep 08	03:17:18	470	2618	A	0.5854	0.9808	36.9N	152.5E	54	83	01m43s
10040	09	2229	Sep 18	10:34:51	516	2841	A	0.6439	0.9805	36.2N	44.8E	50	89	01m44s
10084	10	2247	Sep 29	18:01:05	564	3064	A	0.6961	0.9801	35.6N	65.9W	46	96	01m47s
10129	11	2265	Oct 10	01:37:34	615	3287	A	0.7404	0.9796	35.1N	179.8W	42	105	01m51s
10174	12	2283	Oct 21	09:23:11	667	3510	A	0.7783	0.9790	34.9N	63.2E	39	116	01m56s
10219	13	2301	Nov 01	17:19:33	721	3733	A	0.8080	0.9786	34.8N	57.2W	36	126	02m01s
10264	14	2319	Nov 13	01:24:39	778	3956	A	0.8314	0.9784	35.0N	179.6E	34	136	02m04s
10309	15	2337	Nov 23	09:37:55	836	4179	A	0.8488	0.9786	35.5N	53.8E	32	142	02m05s
10355	16	2355	Dec 04	17:58:37	897	4402	A	0.8609	0.9792	36.0N	74.4W	30	145	02m02s
10400	17	2373	Dec 15	02:25:55	960	4625	A	0.8678	0.9803	36.7N	155.4E	29	141	01m56s
10444	18	2391	Dec 26	10:57:15	1024	4848	A	0.8723	0.9820	37.6N	24.0E	29	131	01m46s
10488	19	2410	Jan 05	19:31:39	1091	5071	A	0.8749	0.9842	38.8N	108.2W	29	116	01m31s
10531	20	2428	Jan 17	04:07:20	1160	5294	A	0.8770	0.9870	40.5N	119.1E	28	96	01m13s
10574	21	2446	Jan 27	12:43:51	1231	5517	A	0.8789	0.9903	42.7N	13.9W	28	72	00m53s
10617	22	2464	Feb 07	21:17:16	1304	5740	A	0.8840	0.9941	45.7N	146.4W	28	44	00m31s
10659	23	2482	Feb 18	05:48:52	1379	5963	A	0.8912	0.9982	49.3N	81.2E	27	14	00m09s
10701	24	2500	Mar 01	14:14:47	1457	6186	H	0.9038	1.0026	53.9N	50.7W	25	21	00m12s
10742	25	2518	Mar 12	22:37:02	1536	6409	T	0.9200	1.0071	59.1N	176.7E	23	63	00m31s
10783	26	2536	Mar 23	06:51:06	1617	6632	T	0.9435	1.0115	65.3N	42.0E	19	121	00m46s
10823	27	2554	Apr 03	15:00:51	1701	6855	T	0.9713	1.0153	71.5N	102.2W	13	232	00m56s
10863	28	2572	Apr 13	23:02:08	1786	7078	P	1.0068	0.9902	71.5N	81.8E	0		
10903	29	2590	Apr 25	06:57:46	1874	7301	P	1.0476	0.9167	70.9N	50.1W	0		
10944	30	2608	May 06	14:45:32	1963	7524	P	1.0954	0.8288	70.1N	179.4W	0		
10985	31	2626	May 17	22:28:40	2055	7747	P	1.1476	0.7318	69.1N	53.1E	0		
11025	32	2644	May 28	06:05:58	2149	7970	P	1.2051	0.6236	68.2N	72.3W	0		

11065	33	2662	Jun 08	13:38:43	2245	8193	P	1.2666	0.5068	67.2N	163.9E	0
11106	34	2680	Jun 18	21:08:08	2342	8416	P	1.3315	0.3827	66.2N	41.5E	0
11148	35	2698	Jun 30	04:35:43	2442	8639	P	1.3983	0.2539	65.3N	80.1W	0
11190	36	2716	Jul 11	12:01:43	2545	8862	Pe	1.4666	0.1219	64.4N	159.1E	0

SAROS SERIES

139

Saros series 139 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

08315	-35	1501	May 17	03:27:44	194	-6167	Pb	1.5002	0.0905	63.7N	13.6W	0
08357	-34	1519	May 28	10:20:09	176	-5944	P	1.4188	0.2342	64.6N	126.3W	0
08398	-33	1537	Jun 07	17:14:05	160	-5721	P	1.3373	0.3796	65.5N	120.2E	0
08439	-32	1555	Jun 19	00:07:16	146	-5498	P	1.2542	0.5290	66.5N	6.6E	0
08480	-31	1573	Jun 29	07:03:36	133	-5275	P	1.1724	0.6770	67.5N	108.2W	0
08521	-30	1591	Jul 20	14:02:08	123	-5052	P	1.0911	0.8249	68.5N	136.0E	0

08561	-29	1609	Jul 30	21:07:08	108	-4829	P	1.0140	0.9657	69.5N	17.9E	0
08605	-28	1627	Aug 11	04:17:14	83	-4606	H	0.9401	1.0001	77.7N	173.3W	19 1 00m00s
08650	-27	1645	Aug 21	11:34:18	55	-4383	H	0.8710	1.0040	68.2N	43.7E	29 28 00m16s
08695	-26	1663	Sep 01	18:59:08	31	-4160	H	0.8073	1.0065	58.6N	78.9W	36 38 00m29s
08741	-25	1681	Sep 12	02:33:12	13	-3937	H	0.7504	1.0083	49.8N	161.1E	41 43 00m40s
08786	-24	1699	Sep 23	10:16:12	8	-3714	H	0.6999	1.0095	41.8N	40.7E	45 46 00m49s
08831	-23	1717	Oct 04	18:08:27	10	-3491	H	0.6563	1.0104	34.6N	81.1W	49 47 00m56s
08876	-22	1735	Oct 16	02:10:34	11	-3268	H	0.6202	1.0110	28.3N	155.2E	51 48 01m02s
08922	-21	1753	Oct 26	10:22:01	13	-3045	H	0.5910	1.0115	22.7N	29.7E	54 49 01m08s
08967	-20	1771	Nov 06	18:41:02	16	-2822	H	0.5676	1.0120	17.9N	97.3W	55 50 01m13s
09013	-19	1789	Nov 17	03:08:35	16	-2599	H	0.5504	1.0126	14.1N	133.9E	57 52 01m19s
09059	-18	1807	Nov 29	11:42:09	12	-2376	H	0.5377	1.0135	11.1N	3.9E	57 55 01m26s
09104	-17	1825	Dec 09	20:21:45	9	-2153	H2	0.5296	1.0148	9.2N	127.4W	58 60 01m34s
09148	-16	1843	Dec 21	05:03:26	6	-1930	T	0.5227	1.0165	8.0N	101.0E	58 66 01m43s
09191	-15	1861	Dec 31	13:49:06	8	-1707	T	0.5187	1.0186	7.8N	31.6W	59 74 01m55s
09233	-14	1880	Jan 11	22:34:25	-5	-1484	T	0.5136	1.0212	8.3N	164.1W	59 84 02m07s
09275	-13	1898	Jan 22	07:19:12	-5	-1261	T	0.5079	1.0244	9.5N	63.6E	59 96 02m21s
09317	-12	1916	Feb 03	16:00:21	18	-1038	T	0.4987	1.0280	11.1N	67.7W	60 108 02m36s
09360	-11	1934	Feb 14	00:38:41	24	-815	T	0.4868	1.0321	13.2N	161.7E	61 123 02m53s
09402	-10	1952	Feb 25	09:11:35	30	-592	T	0.4697	1.0366	15.6N	32.7E	62 138 03m09s
09442	-09	1970	Mar 07	17:38:30	40	-369	T	0.4473	1.0414	18.2N	94.7W	63 153 03m28s
09482	-08	1988	Mar 18	01:58:56	56	-146	T	0.4188	1.0464	20.7N	140.0E	65 169 03m46s
09521	-07	2006	Mar 29	10:12:23	65	77	T	0.3843	1.0515	23.2N	16.7E	67 184 04m07s
09561	-06	2024	Apr 08	18:18:29	74	300	T	0.3431	1.0566	25.3N	104.1W	70 198 04m28s
09601	-05	2042	Apr 20	02:17:30	86	523	T	0.2956	1.0614	27.0N	137.3E	73 210 04m51s
09642	-04	2060	Apr 30	10:10:00	114	746	T	0.2422	1.0660	28.0N	20.9E	76 222 05m15s
09683	-03	2078	May 11	17:56:55	153	969	T	0.1838	1.0701	28.1N	93.7W	79 232 05m40s
09724	-02	2096	May 22	01:37:14	194	1192	T	0.1196	1.0737	27.3N	153.4E	83 241 06m06s

09765	-01	2114	Jun 03	09:14:09	237	1415	T	0.0525	1.0766	25.4N	41.3E	87	248	06m32s
09805	00	2132	Jun 13	16:46:24	282	1638	Tm	-0.0186	1.0788	22.3N	70.1W	89	255	06m55s
09847	01	2150	Jun 25	00:17:25	329	1861	T	-0.0910	1.0802	18.3N	178.1E	85	260	07m14s
09889	02	2168	Jul 05	07:45:23	368	2084	T	-0.1660	1.0807	13.2N	66.4E	81	264	07m26s
09933	03	2186	Jul 16	15:14:54	409	2307	T	-0.2396	1.0805	7.4N	46.5W	76	267	07m29s
09978	04	2204	Jul 27	22:44:32	452	2530	T	-0.3129	1.0793	1.0N	160.1W	72	269	07m22s
10022	05	2222	Aug 08	06:17:05	498	2753	T	-0.3837	1.0774	6.0S	84.9E	67	270	07m06s
10066	06	2240	Aug 18	13:52:25	545	2976	T	-0.4522	1.0746	13.3S	31.3W	63	270	06m40s
10111	07	2258	Aug 29	21:33:05	595	3199	T	-0.5161	1.0712	20.9S	149.2W	59	269	06m09s
10156	08	2276	Sep 09	05:18:47	646	3422	T	-0.5755	1.0671	28.5S	91.2E	55	266	05m33s
10202	09	2294	Sep 20	13:09:58	700	3645	T	-0.6300	1.0627	36.2S	29.9W	51	263	04m56s
10247	10	2312	Oct 01	21:08:26	755	3868	T	-0.6783	1.0578	43.8S	152.9W	47	258	04m20s
10292	11	2330	Oct 13	05:13:41	813	4091	T	-0.7208	1.0528	51.2S	82.5E	44	251	03m46s
10338	12	2348	Oct 23	13:26:56	873	4314	T	-0.7564	1.0476	58.2S	43.6W	41	242	03m14s
10383	13	2366	Nov 03	21:46:04	935	4537	T	-0.7868	1.0426	64.8S	170.2W	38	231	02m46s
10427	14	2384	Nov 14	06:13:20	999	4760	T	-0.8102	1.0377	70.9S	63.5E	36	217	02m22s
10471	15	2402	Nov 25	14:45:41	1065	4983	T	-0.8291	1.0332	76.2S	59.6W	34	202	02m02s
10514	16	2420	Dec 05	23:23:52	1133	5206	T	-0.8431	1.0290	80.2S	174.0W	32	185	01m44s
10557	17	2438	Dec 17	08:05:40	1203	5429	T	-0.8539	1.0254	81.7S	84.3E	31	168	01m30s
10600	18	2456	Dec 27	16:51:25	1275	5652	T	-0.8614	1.0222	79.8S	22.0W	30	151	01m19s
10643	19	2475	Jan 08	01:37:52	1349	5875	T	-0.8679	1.0196	76.2S	141.8W	29	136	01m09s
10685	20	2493	Jan 18	10:24:30	1426	6098	T	-0.8742	1.0174	72.2S	90.8E	29	123	01m02s
10727	21	2511	Jan 30	19:09:33	1504	6321	T	-0.8816	1.0157	68.1S	39.5W	28	114	00m57s
10767	22	2529	Feb 10	03:52:31	1585	6544	T	-0.8908	1.0143	64.3S	170.7W	27	108	00m53s
10807	23	2547	Feb 21	12:29:30	1667	6767	T	-0.9046	1.0132	61.1S	59.6E	25	106	00m50s
10847	24	2565	Mar 03	21:01:39	1752	6990	T	-0.9220	1.0121	58.7S	68.8W	22	107	00m46s
10887	25	2583	Mar 15	05:25:52	1839	7213	T	-0.9456	1.0109	57.4S	166.2E	19	115	00m42s
10928	26	2601	Mar 26	13:43:55	1928	7436	T	-0.9740	1.0091	58.0S	45.6E	12	142	00m35s

10969	27	2619	Apr 06	21:51:02	2019	7659	P	-1.0108	0.9781	61.2S	60.7W	0
11010	28	2637	Apr 17	05:51:33	2111	7882	P	-1.0525	0.9013	61.6S	170.8E	0
11049	29	2655	Apr 28	13:40:56	2207	8105	P	-1.1024	0.8094	62.0S	45.1E	0
11090	30	2673	May 08	21:23:23	2304	8328	P	-1.1574	0.7080	62.7S	79.1W	0
11131	31	2691	May 20	04:55:09	2403	8551	P	-1.2203	0.5922	63.4S	159.1E	0
11173	32	2709	May 31	12:21:17	2504	8774	P	-1.2869	0.4697	64.2S	38.6E	0
11215	33	2727	Jun 11	19:39:01	2607	8997	P	-1.3590	0.3372	65.2S	80.2W	0
11258	34	2745	Jun 22	02:51:30	2713	9220	P	-1.4345	0.1992	66.1S	162.0E	0
11303	35	2763	Jul 03	09:58:23	2820	9443	Pe	-1.5132	0.0562	67.1S	45.2E	0

SAROS SERIES

140

Saros series 140 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

08340	-37	1512	Apr 16	06:22:25	183	-6032	Pb	-1.5289	0.0003	70.6S	131.9E	0
-------	-----	------	--------	----------	-----	-------	----	---------	--------	-------	--------	---

08382	-36	1530	Apr 27	14:07:20	166	-5809	P	-1.4726	0.1083	69.9S	2.9E	0
08423	-35	1548	May 07	21:46:52	151	-5586	P	-1.4121	0.2250	69.0S	124.2W	0
08464	-34	1566	May 19	05:21:00	138	-5363	P	-1.3472	0.3507	68.1S	110.7E	0
08505	-33	1584	Jun 08	12:52:25	126	-5140	P	-1.2802	0.4805	67.1S	13.3W	0
08546	-32	1602	Jun 19	20:19:21	116	-4917	P	-1.2097	0.6174	66.1S	135.7W	0
08588	-31	1620	Jun 30	03:46:25	93	-4694	P	-1.1393	0.7535	65.1S	102.3E	0
08632	-30	1638	Jul 11	11:11:52	66	-4471	P	-1.0676	0.8917	64.2S	19.0W	0
08677	-29	1656	Jul 21	18:39:48	40	-4248	T	-0.9983	1.0244	63.4S	140.7W	0
08723	-28	1674	Aug 02	02:07:57	19	-4025	T	-0.9295	1.0560	45.9S	120.8E	21 498 04m08s
08768	-27	1692	Aug 12	09:41:06	8	-3802	T	-0.8649	1.0546	39.8S	8.6E	30 353 04m10s
08813	-26	1710	Aug 24	17:17:16	9	-3579	T	-0.8031	1.0519	36.5S	105.1W	36 282 04m00s
08858	-25	1728	Sep 04	00:59:22	10	-3356	T	-0.7466	1.0484	35.0S	139.6E	41 236 03m44s
08904	-24	1746	Sep 15	08:46:37	12	-3133	T	-0.6948	1.0441	34.9S	23.0E	46 200 03m23s
08949	-23	1764	Sep 25	16:41:43	15	-2910	T	-0.6502	1.0394	36.0S	95.5W	49 171 03m01s
08995	-22	1782	Oct 07	00:43:19	17	-2687	T	-0.6113	1.0344	37.9S	144.6E	52 144 02m37s
09040	-21	1800	Oct 18	08:51:53	13	-2464	T	-0.5787	1.0293	40.3S	23.2E	54 120 02m14s
09085	-20	1818	Oct 29	17:07:10	12	-2241	T	-0.5524	1.0241	43.1S	99.4W	56 98 01m51s
09130	-19	1836	Nov 09	01:29:26	5	-2018	T	-0.5327	1.0191	46.1S	136.8E	58 77 01m28s
09174	-18	1854	Nov 20	09:56:58	7	-1795	H3	-0.5179	1.0144	48.9S	12.7E	59 57 01m07s
09217	-17	1872	Nov 30	18:29:33	-2	-1572	H	-0.5081	1.0099	51.2S	111.8W	59 40 00m47s
09259	-16	1890	Dec 12	03:05:28	-6	-1349	H	-0.5016	1.0059	52.8S	123.9E	60 24 00m28s
09301	-15	1908	Dec 23	11:44:28	9	-1126	H	-0.4985	1.0024	53.4S	0.5W	60 10 00m12s
09343	-14	1927	Jan 03	20:22:53	24	-903	A	-0.4956	0.9995	52.8S	124.8W	60 2 00m03s
09386	-13	1945	Jan 14	05:01:43	27	-680	A	-0.4937	0.9970	51.1S	110.3E	60 12 00m15s
09426	-12	1963	Jan 25	13:37:12	35	-457	A	-0.4898	0.9951	48.2S	15.0W	60 20 00m25s
09466	-11	1981	Feb 04	22:09:24	51	-234	A	-0.4838	0.9937	44.4S	140.8W	61 25 00m33s
09505	-10	1999	Feb 16	06:34:38	63	-11	A	-0.4726	0.9928	39.8S	93.9E	62 29 00m40s
09545	-09	2017	Feb 26	14:54:33	70	212	A	-0.4578	0.9922	34.7S	31.2W	63 31 00m44s

09585	-08	2035	Mar 09	23:05:54	81	435	A	-0.4368	0.9919	29.0S	154.9W	64	31	00m48s
09625	-07	2053	Mar 20	07:08:19	99	658	A	-0.4089	0.9919	23.0S	83.0E	66	31	00m50s
09667	-06	2071	Mar 31	15:01:06	138	881	A	-0.3739	0.9919	16.7S	37.0W	68	31	00m52s
09708	-05	2089	Apr 10	22:44:42	178	1104	A	-0.3319	0.9919	10.2S	154.8W	71	30	00m53s
09749	-04	2107	Apr 23	06:18:41	220	1327	A	-0.2829	0.9918	3.6S	89.9E	74	30	00m56s
09790	-03	2125	May 03	13:42:33	264	1550	A	-0.2263	0.9915	3.0N	22.6W	77	31	00m59s
09831	-02	2143	May 14	20:58:14	310	1773	Am	-0.1638	0.9908	9.4N	132.7W	81	33	01m05s
09873	-01	2161	May 25	04:05:43	352	1996	A	-0.0950	0.9898	15.7N	119.8E	85	36	01m12s
09916	00	2179	Jun 05	11:05:36	393	2219	A	-0.0209	0.9884	21.5N	15.0E	89	41	01m21s
09960	01	2197	Jun 15	17:59:33	435	2442	A	0.0574	0.9864	26.8N	87.6W	87	48	01m32s
10004	02	2215	Jun 28	00:48:45	480	2665	A	0.1388	0.9839	31.4N	172.0E	82	58	01m44s
10048	03	2233	Jul 08	07:35:24	526	2888	A	0.2215	0.9809	35.1N	73.1E	77	70	01m59s
10093	04	2251	Jul 19	14:18:46	575	3111	A	0.3062	0.9773	38.0N	24.2W	72	85	02m16s
10138	05	2269	Jul 29	21:03:04	625	3334	A	0.3893	0.9732	39.9N	121.3W	67	104	02m35s
10184	06	2287	Aug 10	03:47:42	678	3557	A	0.4714	0.9686	41.0N	141.8E	62	127	02m56s
10229	07	2305	Aug 21	10:35:44	733	3780	A	0.5497	0.9637	41.5N	43.7E	56	155	03m21s
10274	08	2323	Sep 01	17:26:09	790	4003	A	0.6253	0.9584	41.7N	55.3W	51	191	03m48s
10319	09	2341	Sep 12	00:22:47	849	4226	A	0.6950	0.9529	41.7N	156.4W	46	234	04m19s
10365	10	2359	Sep 23	07:24:42	910	4449	A	0.7595	0.9471	41.9N	100.6E	40	291	04m53s
10409	11	2377	Oct 03	14:33:17	973	4672	A	0.8178	0.9413	42.6N	4.7W	35	366	05m29s
10453	12	2395	Oct 14	21:49:16	1038	4895	A	0.8691	0.9354	44.0N	112.4W	29	471	06m07s
10496	13	2413	Oct 25	05:13:20	1106	5118	A	0.9129	0.9298	46.2N	137.3E	24	628	06m43s
10539	14	2431	Nov 05	12:45:40	1175	5341	A	0.9496	0.9242	49.5N	24.5E	18	902	07m15s
10582	15	2449	Nov 15	20:23:56	1246	5564	An	0.9810	0.9186	54.9N	89.1W	10	-	07m35s
10625	16	2467	Nov 27	04:10:21	1320	5787	A+	1.0051	0.9434	63.7N	158.3E	0		
10668	17	2485	Dec 07	12:02:00	1395	6010	A+	1.0242	0.9100	64.7N	31.2E	0		
10710	18	2503	Dec 19	19:59:21	1473	6233	P	1.0385	0.8851	65.7N	97.7W	0		
10751	19	2521	Dec 30	03:58:50	1553	6456	P	1.0507	0.8642	66.8N	132.5E	0		

10792	20	2540	Jan 10	12:01:35	1635	6679	P	1.0600	0.8483	67.9N	1.3E	0
10832	21	2558	Jan 20	20:03:53	1718	6902	P	1.0693	0.8326	69.0N	130.4W	0
10872	22	2576	Feb 01	04:04:59	1804	7125	P	1.0793	0.8161	70.0N	97.6E	0
10912	23	2594	Feb 11	12:02:17	1892	7348	P	1.0921	0.7951	70.9N	34.1W	0
10953	24	2612	Feb 23	19:55:50	1982	7571	P	1.1076	0.7697	71.6N	165.6W	0
10994	25	2630	Mar 06	03:42:09	2075	7794	P	1.1288	0.7350	72.1N	64.3E	0
11034	26	2648	Mar 16	11:21:54	2169	8017	P	1.1552	0.6917	72.3N	64.5W	0
11074	27	2666	Mar 27	18:53:07	2265	8240	P	1.1881	0.6371	72.2N	168.8E	0
11115	28	2684	Apr 07	02:17:17	2363	8463	P	1.2265	0.5732	71.9N	44.0E	0
11157	29	2702	Apr 19	09:30:34	2464	8686	P	1.2736	0.4942	71.4N	77.6W	0
11199	30	2720	Apr 29	16:37:17	2566	8909	P	1.3257	0.4061	70.7N	163.1E	0
11241	31	2738	May 10	23:34:31	2671	9132	P	1.3856	0.3042	69.8N	46.7E	0
11284	32	2756	May 21	06:26:50	2778	9355	P	1.4490	0.1955	68.8N	67.7W	0
11329	33	2774	Jun 01	13:10:10	2886	9578	Pe	1.5196	0.0738	67.8N	179.3W	0

SAROS SERIES

141

Saros series 141 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										

08570	-33	1613 May 19	17:43:36	103	-4782	Pb	1.5171	0.0712	63.3N	137.6E	0		
08614	-32	1631 May 31	00:25:37	77	-4559	P	1.4433	0.1996	64.1N	27.6E	0		
08659	-31	1649 Jun 10	07:02:37	50	-4336	P	1.3657	0.3345	65.0N	81.5W	0		
08705	-30	1667 Jun 21	13:36:07	26	-4113	P	1.2858	0.4732	65.9N	170.1E	0		
08750	-29	1685 Jul 01	20:06:07	11	-3890	P	1.2030	0.6163	66.9N	62.2E	0		
08795	-28	1703 Jul 14	02:36:34	9	-3667	P	1.1206	0.7580	67.9N	46.3W	0		
08840	-27	1721 Jul 24	09:06:55	10	-3444	P	1.0382	0.8990	68.9N	155.2W	0		
08886	-26	1739 Aug 04	15:40:56	11	-3221	A	0.9588	0.9408	79.9N	42.9E	16	801	03m59s
08932	-25	1757 Aug 14	22:16:45	14	-2998	A	0.8807	0.9407	71.6N	113.5W	28	467	04m36s
08977	-24	1775 Aug 26	04:59:40	16	-2775	A	0.8088	0.9391	61.3N	132.0E	36	383	05m16s
09023	-23	1793 Sep 05	11:47:24	16	-2552	A	0.7407	0.9370	51.7N	23.0E	42	347	06m02s
09068	-22	1811 Sep 17	18:43:45	12	-2329	A	0.6798	0.9345	43.0N	85.9W	47	330	06m51s
09113	-21	1829 Sep 28	01:46:53	8	-2106	A	0.6243	0.9317	34.9N	164.3E	51	323	07m43s
09157	-20	1847 Oct 09	09:00:23	7	-1883	A	0.5774	0.9290	27.7N	52.8E	55	323	08m35s
09200	-19	1865 Oct 19	16:21:14	5	-1660	A	0.5366	0.9263	21.3N	60.2W	57	326	09m27s
09242	-18	1883 Oct 30	23:50:54	-6	-1437	A	0.5030	0.9238	15.6N	174.9W	60	331	10m17s
09284	-17	1901 Nov 11	07:28:21	-0	-1214	A	0.4758	0.9216	10.8N	68.9E	62	336	11m01s
09327	-16	1919 Nov 22	15:14:12	21	-991	A	0.4549	0.9198	6.9N	48.9W	63	341	11m37s
09370	-15	1937 Dec 02	23:05:45	24	-768	A	0.4389	0.9184	4.0N	167.8W	64	344	12m00s
09411	-14	1955 Dec 14	07:02:25	31	-545	A	0.4266	0.9176	2.1N	72.2E	65	346	12m09s
09451	-13	1973 Dec 24	15:02:44	44	-322	A	0.4171	0.9174	1.1N	48.5W	65	345	12m02s
09490	-12	1992 Jan 04	23:05:37	58	-99	A	0.4091	0.9179	1.0N	169.7W	66	340	11m41s
09529	-11	2010 Jan 15	07:07:39	67	124	A	0.4002	0.9190	1.6N	69.3E	66	333	11m08s

09569	-10	2028	Jan 26	15:08:59	76	347	A	0.3901	0.9208	3.0N	51.5W	67	323	10m27s
09609	-09	2046	Feb 05	23:06:26	90	570	A	0.3765	0.9232	4.8N	171.4W	68	310	09m42s
09650	-08	2064	Feb 17	07:00:23	122	793	A	0.3597	0.9262	7.0N	69.7E	69	295	08m56s
09691	-07	2082	Feb 27	14:47:00	162	1016	A	0.3361	0.9298	9.4N	47.1W	70	277	08m12s
09733	-06	2100	Mar 10	22:28:11	203	1239	A	0.3077	0.9338	12.0N	162.4W	72	257	07m29s
09774	-05	2118	Mar 22	06:00:55	246	1462	A	0.2719	0.9382	14.3N	84.7E	74	237	06m50s
09815	-04	2136	Apr 01	13:26:19	292	1685	A	0.2295	0.9430	16.5N	26.0W	77	216	06m14s
09857	-03	2154	Apr 12	20:43:01	337	1908	A	0.1794	0.9478	18.2N	134.2W	80	195	05m42s
09899	-02	2172	Apr 23	03:53:15	377	2131	A	0.1234	0.9528	19.2N	119.6E	83	174	05m12s
09943	-01	2190	May 04	10:56:30	418	2354	A	0.0608	0.9577	19.4N	15.4E	86	154	04m45s
09988	00	2208	May 15	17:53:06	462	2577	A	-0.0080	0.9625	18.7N	87.0W	90	136	04m19s
10031	01	2226	May 27	00:45:11	508	2800	A	-0.0810	0.9670	16.8N	171.5E	85	119	03m55s
10075	02	2244	Jun 06	07:33:12	555	3023	Am	-0.1581	0.9712	13.8N	70.7E	81	105	03m31s
10120	03	2262	Jun 17	14:19:15	605	3246	A	-0.2377	0.9750	9.8N	30.2W	76	92	03m08s
10165	04	2280	Jun 27	21:03:21	657	3469	A	-0.3197	0.9784	4.6N	131.2W	71	81	02m45s
10211	05	2298	Jul 09	03:49:02	711	3692	A	-0.4012	0.9811	1.4S	126.5E	66	73	02m23s
10256	06	2316	Jul 20	10:36:18	767	3915	A	-0.4819	0.9834	8.1S	23.1E	61	67	02m03s
10302	07	2334	Jul 31	17:26:33	825	4138	A	-0.5608	0.9851	15.6S	81.8W	56	64	01m45s
10348	08	2352	Aug 11	00:21:35	886	4361	A	-0.6366	0.9862	23.6S	171.2E	50	63	01m32s
10393	09	2370	Aug 22	07:22:21	948	4584	A	-0.7082	0.9867	32.0S	62.0E	45	66	01m22s
10436	10	2388	Sep 01	14:30:25	1012	4807	A	-0.7744	0.9867	40.7S	50.1W	39	73	01m15s
10480	11	2406	Sep 12	21:45:23	1079	5030	A	-0.8356	0.9862	49.6S	165.5W	33	88	01m11s
10523	12	2424	Sep 23	05:09:46	1147	5253	A	-0.8896	0.9853	58.6S	74.1E	27	114	01m08s
10566	13	2442	Oct 04	12:43:00	1218	5476	A	-0.9371	0.9838	67.2S	54.7W	20	166	01m08s
10609	14	2460	Oct 14	20:25:57	1291	5699	A	-0.9775	0.9817	73.9S	156.1E	11	328	01m09s
10651	15	2478	Oct 26	04:18:22	1365	5922	P	-1.0109	0.9645	71.0S	13.3W	0		
10693	16	2496	Nov 05	12:20:23	1442	6145	P	-1.0373	0.9173	70.2S	146.4W	0		
10735	17	2514	Nov 17	20:31:22	1521	6368	P	-1.0572	0.8818	69.3S	78.9E	0		

10776	18	2532	Nov 28	04:49:26	1602	6591	P	-1.0722	0.8553	68.3S	57.0W	0
10816	19	2550	Dec 09	13:15:41	1685	6814	P	-1.0815	0.8390	67.2S	165.7E	0
10856	20	2568	Dec 19	21:47:01	1770	7037	P	-1.0877	0.8284	66.2S	27.6E	0
10896	21	2586	Dec 31	06:23:26	1857	7260	P	-1.0903	0.8243	65.1S	111.3W	0
10937	22	2605	Jan 11	15:01:06	1947	7483	P	-1.0928	0.8207	64.2S	110.0E	0
10978	23	2623	Jan 22	23:41:24	2038	7706	P	-1.0937	0.8199	63.3S	29.1W	0
11018	24	2641	Feb 02	08:20:04	2131	7929	P	-1.0971	0.8150	62.6S	167.5W	0
11058	25	2659	Feb 13	16:57:15	2227	8152	P	-1.1020	0.8073	62.0S	54.6E	0
11099	26	2677	Feb 24	01:29:55	2324	8375	P	-1.1113	0.7915	61.6S	81.9W	0
11141	27	2695	Mar 07	09:58:56	2424	8598	P	-1.1242	0.7693	61.3S	142.5E	0
11183	28	2713	Mar 18	18:21:32	2526	8821	P	-1.1428	0.7362	61.2S	8.6E	0
11225	29	2731	Mar 30	02:38:14	2629	9044	P	-1.1669	0.6925	61.2S	123.8W	0
11268	30	2749	Apr 09	10:47:47	2735	9267	P	-1.1976	0.6362	61.5S	105.6E	0
11313	31	2767	Apr 20	18:51:20	2843	9490	P	-1.2335	0.5694	61.8S	23.6W	0
11357	32	2785	May 01	02:47:04	2953	9713	P	-1.2764	0.4886	62.3S	151.0W	0
11402	33	2803	May 12	10:37:20	3065	9936	P	-1.3244	0.3976	63.0S	82.7E	0
11447	34	2821	May 22	18:21:01	3179	10159	P	-1.3779	0.2949	63.8S	42.0W	0
11492	35	2839	Jun 03	02:01:17	3295	10382	P	-1.4350	0.1847	64.6S	166.2W	0
11538	36	2857	Jun 13	09:35:05	3414	10605	Pe	-1.4973	0.0637	65.5S	70.9E	0

SAROS SERIES

142

Saros series 142 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
ECLIPSE													
08597	-35	1624 Apr 17	17:16:18	88	-4647	Pb	-1.5208	0.0582	71.2S	23.1W	0		
08642	-34	1642 Apr 29	00:29:43	60	-4424	P	-1.4585	0.1660	70.6S	144.7W	0		
08687	-33	1660 May 09	07:36:45	35	-4201	P	-1.3897	0.2868	69.7S	95.9E	0		
08733	-32	1678 May 20	14:40:42	16	-3978	P	-1.3172	0.4158	68.8S	22.1W	0		
08778	-31	1696 May 30	21:41:23	8	-3755	P	-1.2406	0.5534	67.8S	138.7W	0		
08823	-30	1714 Jun 12	04:40:01	10	-3532	P	-1.1610	0.6976	66.8S	105.8E	0		
08868	-29	1732 Jun 22	11:38:48	11	-3309	P	-1.0800	0.8457	65.8S	9.3W	0		
08914	-28	1750 Jul 03	18:38:52	13	-3086	P	-0.9985	0.9956	64.8S	124.3W	0		
08959	-27	1768 Jul 14	01:40:57	16	-2863	H	-0.9176	1.0055	43.0S	137.4E	23	48	00m29s
09005	-26	1786 Jul 25	08:46:33	17	-2640	T	-0.8384	1.0106	34.6S	30.8E	33	66	00m59s
09050	-25	1804 Aug 05	15:57:13	12	-2417	T	-0.7622	1.0144	29.3S	77.1W	40	75	01m20s
09095	-24	1822 Aug 16	23:14:34	11	-2194	T	-0.6904	1.0173	26.1S	173.5E	46	80	01m35s
09139	-23	1840 Aug 27	06:37:32	5	-1971	T	-0.6223	1.0195	24.3S	62.9E	51	83	01m45s
09182	-22	1858 Sep 07	14:09:29	7	-1748	T	-0.5609	1.0210	23.9S	49.8W	56	85	01m50s
09225	-21	1876 Sep 17	21:49:15	-4	-1525	T	-0.5054	1.0220	24.6S	164.5W	60	86	01m53s
09267	-20	1894 Sep 29	05:39:02	-6	-1302	T	-0.4573	1.0226	26.1S	78.5E	63	85	01m55s
09309	-19	1912 Oct 10	13:36:14	14	-1079	T	-0.4149	1.0229	28.1S	40.1W	65	85	01m55s

09352	-18	1930	Oct 21	21:43:53	24	-856	T	-0.3804	1.0230	30.5S	161.1W	67	84	01m55s
09395	-17	1948	Nov 01	05:59:18	29	-633	T	-0.3517	1.0231	33.1S	76.2E	69	84	01m56s
09435	-16	1966	Nov 12	14:23:28	37	-410	T	-0.3300	1.0234	35.6S	48.2W	71	84	01m57s
09475	-15	1984	Nov 22	22:54:17	54	-187	T	-0.3132	1.0237	37.8S	173.6W	72	85	02m00s
09514	-14	2002	Dec 04	07:32:16	64	36	T	-0.3020	1.0244	39.5S	59.6E	72	87	02m04s
09554	-13	2020	Dec 14	16:14:39	72	259	T	-0.2939	1.0254	40.3S	67.9W	73	90	02m10s
09594	-12	2038	Dec 26	01:00:10	84	482	T	-0.2881	1.0268	40.3S	164.0E	73	95	02m18s
09634	-11	2057	Jan 05	09:47:52	107	705	T	-0.2837	1.0287	39.2S	35.2E	73	102	02m29s
09675	-10	2075	Jan 16	18:36:04	146	928	T	-0.2799	1.0311	37.2S	94.1W	74	110	02m42s
09716	-09	2093	Jan 27	03:22:16	186	1151	T	-0.2737	1.0340	34.1S	136.4E	74	119	02m58s
09757	-08	2111	Feb 08	12:05:33	229	1374	T	-0.2650	1.0374	30.2S	6.8E	74	130	03m17s
09798	-07	2129	Feb 18	20:44:37	274	1597	T	-0.2526	1.0411	25.6S	122.5W	75	142	03m38s
09840	-06	2147	Mar 02	05:18:54	320	1820	T	-0.2360	1.0452	20.5S	108.8E	76	155	04m02s
09882	-05	2165	Mar 12	13:45:50	361	2043	T	-0.2130	1.0495	14.9S	18.8W	78	168	04m27s
09926	-04	2183	Mar 23	22:06:49	402	2266	T	-0.1848	1.0540	8.9S	145.2W	79	181	04m54s
09970	-03	2201	Apr 04	06:19:57	444	2489	T	-0.1495	1.0584	2.7S	90.2E	81	194	05m20s
10014	-02	2219	Apr 15	14:26:33	489	2712	T	-0.1086	1.0628	3.7N	32.8W	84	207	05m45s
10058	-01	2237	Apr 25	22:25:04	536	2935	T	-0.0606	1.0668	10.1N	153.7W	87	219	06m05s
10102	00	2255	May 07	06:18:06	585	3158	T	-0.0076	1.0706	16.4N	87.2E	90	230	06m22s
10147	01	2273	May 17	14:04:31	636	3381	Tm	0.0515	1.0738	22.5N	29.7W	87	240	06m31s
10193	02	2291	May 28	21:45:28	690	3604	T	0.1153	1.0764	28.3N	144.5W	83	249	06m34s
10238	03	2309	Jun 09	05:21:55	745	3827	T	0.1833	1.0783	33.6N	102.7E	79	257	06m30s
10283	04	2327	Jun 20	12:55:01	802	4050	T	0.2542	1.0795	38.3N	8.3W	75	265	06m21s
10329	05	2345	Jun 30	20:26:17	862	4273	T	0.3267	1.0797	42.1N	117.7W	71	272	06m07s
10375	06	2363	Jul 12	03:55:03	923	4496	T	0.4012	1.0792	45.0N	134.5E	66	279	05m51s
10419	07	2381	Jul 22	11:25:02	987	4719	T	0.4748	1.0777	46.9N	26.9E	61	285	05m32s
10463	08	2399	Aug 02	18:55:14	1052	4942	T	0.5482	1.0754	48.0N	80.4W	57	291	05m14s
10506	09	2417	Aug 13	02:28:06	1120	5165	T	0.6189	1.0723	48.3N	171.4E	52	297	04m55s

10549	10	2435	Aug 24	10:03:12	1190	5388	T	0.6875	1.0684	48.2N	62.2E	46	304	04m35s
10592	11	2453	Sep 03	17:43:48	1262	5611	T	0.7513	1.0638	48.0N	49.1W	41	312	04m15s
10634	12	2471	Sep 15	01:29:11	1336	5834	T	0.8109	1.0585	48.0N	162.2W	36	323	03m54s
10676	13	2489	Sep 25	09:20:22	1412	6057	T	0.8654	1.0527	48.6N	82.9E	30	341	03m32s
10718	14	2507	Oct 07	17:18:18	1490	6280	T	0.9141	1.0464	50.0N	34.0W	24	374	03m07s
10759	15	2525	Oct 18	01:23:55	1570	6503	T	0.9558	1.0396	52.7N	152.5W	17	450	02m39s
10800	16	2543	Oct 29	09:36:30	1652	6726	Tn	0.9919	1.0316	58.7N	91.9E	6	-	02m02s
10840	17	2561	Nov 08	17:55:40	1736	6949	P	1.0221	0.9660	62.5N	31.3W	0		
10880	18	2579	Nov 20	02:21:42	1823	7172	P	1.0466	0.9182	63.3N	166.5W	0		
10921	19	2597	Nov 30	10:54:08	1911	7395	P	1.0654	0.8814	64.1N	56.4E	0		
10962	20	2615	Dec 12	19:30:54	2002	7618	P	1.0802	0.8524	65.1N	82.1W	0		
11003	21	2633	Dec 23	04:12:15	2094	7841	P	1.0909	0.8313	66.1N	137.9E	0		
11042	22	2652	Jan 03	12:55:42	2189	8064	P	1.0995	0.8144	67.2N	3.1W	0		
11083	23	2670	Jan 13	21:41:08	2286	8287	P	1.1061	0.8013	68.3N	145.2W	0		
11124	24	2688	Jan 25	06:24:18	2384	8510	P	1.1141	0.7860	69.3N	72.8E	0		
11166	25	2706	Feb 05	15:07:13	2485	8733	P	1.1218	0.7713	70.3N	69.9W	0		
11208	26	2724	Feb 16	23:45:25	2588	8956	P	1.1327	0.7511	71.1N	148.0E	0		
11251	27	2742	Feb 27	08:19:28	2693	9179	P	1.1468	0.7250	71.7N	6.3E	0		
11294	28	2760	Mar 09	16:45:54	2800	9402	P	1.1667	0.6887	72.1N	133.9W	0		
11339	29	2778	Mar 21	01:06:37	2909	9625	P	1.1908	0.6446	72.3N	87.0E	0		
11384	30	2796	Mar 31	09:18:22	3021	9848	P	1.2216	0.5883	72.1N	49.7W	0		
11429	31	2814	Apr 11	17:21:36	3134	10071	P	1.2589	0.5204	71.7N	176.0E	0		
11474	32	2832	Apr 22	01:15:31	3249	10294	P	1.3031	0.4397	71.1N	44.5E	0		
11520	33	2850	May 03	09:01:02	3367	10517	P	1.3537	0.3475	70.3N	84.3W	0		
11566	34	2868	May 13	16:37:07	3486	10740	P	1.4111	0.2430	69.4N	149.9E	0		
11613	35	2886	May 25	00:04:54	3608	10963	P	1.4742	0.1283	68.5N	26.8E	0		
11660	36	2904	Jun 05	07:24:49	3732	11186	Pe	1.5428	0.0040	67.5N	93.8W	0		

SAROS SERIES

143

Saros series 143 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08580	-38	1617 Mar 07	10:05:36	98	-4735	Pb	1.5110	0.0419	61.2N	48.6W	0		
08624	-37	1635 Mar 18	18:24:53	71	-4512	P	1.4813	0.0973	61.1N	177.7E	0		
08669	-36	1653 Mar 29	02:38:06	44	-4289	P	1.4469	0.1622	61.2N	45.6E	0		
08715	-35	1671 Apr 09	10:41:25	22	-4066	P	1.4047	0.2423	61.4N	84.1W	0		
08760	-34	1689 Apr 19	18:39:23	9	-3843	P	1.3581	0.3312	61.7N	147.5E	0		
08805	-33	1707 May 02	02:28:17	9	-3620	P	1.3047	0.4339	62.2N	21.4E	0		
08850	-32	1725 May 12	10:12:19	10	-3397	P	1.2472	0.5447	62.8N	103.7W	0		
08896	-31	1743 May 23	17:48:55	12	-3174	P	1.1838	0.6672	63.5N	132.9E	0		
08942	-30	1761 Jun 03	01:22:38	15	-2951	P	1.1182	0.7939	64.4N	9.9E	0		
08988	-29	1779 Jun 14	08:51:28	17	-2728	P	1.0489	0.9276	65.3N	112.1W	0		
09033	-28	1797 Jun 24	16:18:13	14	-2505	T	0.9780	1.0570	77.2N	133.9E	11	975	02m47s

09078	-27	1815	Jul 06	23:43:07	12	-2282	T	0.9062	1.0593	88.1N	162.7W	25	470	03m13s
09123	-26	1833	Jul 17	07:08:02	6	-2059	T	0.8348	1.0591	77.5N	92.5E	33	357	03m29s
09167	-25	1851	Jul 28	14:33:42	7	-1836	T	0.7644	1.0577	68.0N	19.6W	40	296	03m41s
09209	-24	1869	Aug 07	22:01:05	1	-1613	T	0.6960	1.0551	59.1N	133.2W	46	254	03m48s
09251	-23	1887	Aug 19	05:32:05	-6	-1390	T	0.6312	1.0518	50.6N	111.9E	51	221	03m50s
09293	-22	1905	Aug 30	13:07:26	5	-1167	T	0.5708	1.0477	42.5N	4.3W	55	192	03m46s
09335	-21	1923	Sep 10	20:47:29	23	-944	T	0.5149	1.0430	34.7N	121.8W	59	167	03m37s
09378	-20	1941	Sep 21	04:34:03	25	-721	T	0.4649	1.0379	27.3N	119.1E	62	143	03m22s
09419	-19	1959	Oct 02	12:27:00	33	-498	T	0.4207	1.0325	20.4N	1.4W	65	120	03m02s
09459	-18	1977	Oct 12	20:27:27	48	-275	T	0.3836	1.0269	14.1N	123.6W	67	99	02m37s
09498	-17	1995	Oct 24	04:33:30	61	-52	T	0.3518	1.0213	8.4N	113.2E	69	78	02m10s
09538	-16	2013	Nov 03	12:47:36	68	171	H3	0.3272	1.0159	3.5N	11.7W	71	58	01m40s
09578	-15	2031	Nov 14	21:07:31	79	394	H	0.3078	1.0106	0.6S	137.6W	72	38	01m08s
09618	-14	2049	Nov 25	05:33:48	93	617	H	0.2943	1.0057	3.8S	95.2E	73	21	00m38s
09659	-13	2067	Dec 06	14:03:43	130	840	H	0.2845	1.0011	6.0S	32.4W	74	4	00m08s
09700	-12	2085	Dec 16	22:37:48	170	1063	A	0.2786	0.9971	7.3S	160.8W	74	10	00m19s
09741	-11	2103	Dec 29	07:13:18	212	1286	A	0.2747	0.9936	7.5S	70.5E	74	23	00m43s
09782	-10	2122	Jan 08	15:48:51	256	1509	A	0.2713	0.9907	6.9S	58.2W	74	34	01m02s
09823	-09	2140	Jan 20	00:23:11	302	1732	A	0.2676	0.9882	5.5S	173.4E	75	43	01m17s
09865	-08	2158	Jan 30	08:54:37	345	1955	A	0.2620	0.9863	3.4S	45.5E	75	50	01m27s
09908	-07	2176	Feb 10	17:21:21	385	2178	A	0.2532	0.9849	0.9S	81.3W	75	55	01m34s
09952	-06	2194	Feb 21	01:41:31	427	2401	A	0.2396	0.9840	1.9N	153.5E	76	58	01m38s
09997	-05	2212	Mar 04	09:55:00	471	2624	A	0.2211	0.9834	4.9N	30.1E	77	60	01m40s
10041	-04	2230	Mar 15	18:00:26	517	2847	A	0.1964	0.9831	7.9N	91.3W	79	61	01m40s
10085	-03	2248	Mar 26	01:56:01	566	3070	A	0.1643	0.9829	10.6N	150.1E	80	61	01m41s
10130	-02	2266	Apr 06	09:42:37	616	3293	Am	0.1255	0.9829	12.9N	34.0E	83	61	01m42s
10175	-01	2284	Apr 16	17:19:22	668	3516	A	0.0792	0.9827	14.6N	79.2W	85	61	01m45s
10220	00	2302	Apr 29	00:47:19	723	3739	A	0.0263	0.9825	15.6N	170.0E	88	62	01m49s

10265	01	2320	May 09	08:04:33	779	3962	A	-0.0347	0.9820	15.6N	62.1E	88	64	01m56s
10310	02	2338	May 20	15:14:20	838	4185	A	-0.1011	0.9812	14.5N	44.0W	84	67	02m07s
10356	03	2356	May 30	22:15:18	899	4408	A	-0.1735	0.9800	12.2N	148.0W	80	72	02m21s
10401	04	2374	Jun 11	05:09:56	961	4631	A	-0.2504	0.9784	8.8N	109.1E	76	79	02m39s
10445	05	2392	Jun 21	11:57:58	1026	4854	A	-0.3319	0.9762	4.1N	7.3E	71	90	03m02s
10489	06	2410	Jul 02	18:42:30	1093	5077	A	-0.4152	0.9735	1.6S	94.4W	65	104	03m25s
10532	07	2428	Jul 13	01:23:55	1162	5300	A	-0.4998	0.9702	8.3S	163.9E	60	123	03m50s
10575	08	2446	Jul 24	08:03:11	1233	5523	A	-0.5854	0.9665	16.0S	61.9E	54	149	04m13s
10618	09	2464	Aug 03	14:43:00	1306	5746	A	-0.6692	0.9621	24.5S	41.3W	48	184	04m32s
10660	10	2482	Aug 14	21:23:36	1381	5969	A	-0.7515	0.9573	33.7S	145.8W	41	234	04m45s
10702	11	2500	Aug 26	04:08:16	1459	6192	A	-0.8296	0.9518	43.8S	106.9E	34	313	04m53s
10743	12	2518	Sep 06	10:55:41	1538	6415	A	-0.9046	0.9458	54.9S	4.8W	25	467	04m54s
10784	13	2536	Sep 16	17:50:18	1619	6638	A	-0.9727	0.9385	67.2S	131.1W	13	1025	04m48s
10824	14	2554	Sep 28	00:50:14	1703	6861	P	-1.0357	0.8994	72.3S	76.0E	0		
10864	15	2572	Oct 08	07:58:20	1788	7084	P	-1.0915	0.8031	72.0S	44.8W	0		
10904	16	2590	Oct 19	15:13:18	1876	7307	P	-1.1411	0.7180	71.5S	167.0W	0		
10946	17	2608	Oct 30	22:37:25	1966	7530	P	-1.1828	0.6469	70.8S	69.0E	0		
10987	18	2626	Nov 11	06:08:45	2057	7753	P	-1.2180	0.5874	70.0S	56.1W	0		
11027	19	2644	Nov 21	13:47:29	2151	7976	P	-1.2468	0.5390	69.0S	177.5E	0		
11067	20	2662	Dec 02	21:32:54	2247	8199	P	-1.2698	0.5007	67.9S	50.2E	0		
11108	21	2680	Dec 13	05:25:03	2345	8422	P	-1.2874	0.4715	66.8S	78.3W	0		
11150	22	2698	Dec 24	13:21:08	2445	8645	P	-1.3014	0.4485	65.8S	152.7E	0		
11192	23	2717	Jan 04	21:20:53	2547	8868	P	-1.3123	0.4307	64.7S	23.3E	0		
11234	24	2735	Jan 16	05:21:36	2652	9091	P	-1.3223	0.4143	63.8S	106.0W	0		
11277	25	2753	Jan 26	13:23:39	2758	9314	P	-1.3311	0.3997	63.0S	124.7E	0		
11322	26	2771	Feb 06	21:22:12	2866	9537	P	-1.3429	0.3802	62.3S	3.5W	0		
11367	27	2789	Feb 17	05:19:18	2976	9760	P	-1.3557	0.3587	61.7S	131.1W	0		
11412	28	2807	Feb 28	13:10:08	3089	9983	P	-1.3736	0.3288	61.4S	102.9E	0		

11457 29 2825 Mar 10 20:56:44 3204 10206 P -1.3948 0.2930 61.1S 21.8W 0

11502 30 2843 Mar 22 04:34:12 3320 10429 P -1.4236 0.2443 61.1S 144.3W 0

11548 31 2861 Apr 01 12:06:04 3439 10652 P -1.4566 0.1880 61.2S 94.6E 0

11594 32 2879 Apr 12 19:28:29 3560 10875 P -1.4973 0.1183 61.5S 24.2W 0

11641 33 2897 Apr 23 02:43:17 3682 11098 Pe -1.5438 0.0380 61.9S 141.2W 0

SAROS SERIES

144

Saros series 144 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08878	-32	1736 Apr 11	07:18:07	11	-3262	Pb	-1.5166	0.0748	71.5S	134.3E	0		
08924	-31	1754 Apr 22	14:25:57	13	-3039	P	-1.4631	0.1669	71.0S	14.0E	0		
08969	-30	1772 May 02	21:26:41	16	-2816	P	-1.4043	0.2683	70.2S	104.1W	0		
09015	-29	1790 May 14	04:17:21	16	-2593	P	-1.3374	0.3840	69.4S	140.9E	0		
09060	-28	1808 May 25	11:02:35	12	-2370	P	-1.2665	0.5064	68.4S	27.8E	0		

09105	-27	1826	Jun 05	17:39:05	9	-2147	P	-1.1887	0.6407	67.4S	82.5W	0
09149	-26	1844	Jun 16	00:13:22	6	-1924	P	-1.1092	0.7778	66.4S	168.3E	0
09192	-25	1862	Jun 27	06:42:21	8	-1701	P	-1.0252	0.9222	65.4S	60.8E	0
09234	-24	1880	Jul 07	13:10:28	-5	-1478	A	-0.9406	0.9441	46.4S	33.4W	19 611 05m47s
09276	-23	1898	Jul 18	19:36:54	-4	-1255	A	-0.8546	0.9450	35.7S	130.1W	31 385 06m11s
09318	-22	1916	Jul 30	02:06:10	19	-1032	A	-0.7709	0.9447	29.0S	132.4E	39 313 06m24s
09361	-21	1934	Aug 10	08:37:48	24	-809	A	-0.6890	0.9436	24.5S	34.6E	46 280 06m33s
09403	-20	1952	Aug 20	15:13:35	30	-586	A	-0.6102	0.9420	21.7S	64.1W	52 264 06m40s
09443	-19	1970	Aug 31	21:55:30	41	-363	A	-0.5364	0.9400	20.3S	164.0W	57 258 06m47s
09483	-18	1988	Sep 11	04:44:29	56	-140	A	-0.4681	0.9377	20.0S	94.4E	62 258 06m57s
09522	-17	2006	Sep 22	11:41:16	65	83	A	-0.4062	0.9352	20.6S	9.1W	66 261 07m09s
09562	-16	2024	Oct 02	18:46:13	74	306	A	-0.3509	0.9326	22.0S	114.5W	69 266 07m25s
09602	-15	2042	Oct 14	02:00:42	87	529	A	-0.3030	0.9300	23.7S	137.8E	72 273 07m44s
09643	-14	2060	Oct 24	09:24:10	115	752	A	-0.2625	0.9277	25.8S	28.1E	75 281 08m06s
09684	-13	2078	Nov 04	16:55:44	154	975	A	-0.2285	0.9255	27.8S	83.3W	77 287 08m29s
09725	-12	2096	Nov 15	00:36:15	195	1198	A	-0.2018	0.9237	29.7S	163.3E	78 294 08m53s
09766	-11	2114	Nov 27	08:24:15	238	1421	A	-0.1815	0.9223	31.3S	48.4E	79 298 09m14s
09806	-10	2132	Dec 07	16:18:43	283	1644	A	-0.1661	0.9215	32.2S	67.9W	80 301 09m33s
09848	-09	2150	Dec 19	00:17:02	330	1867	A	-0.1535	0.9211	32.3S	175.0E	81 302 09m46s
09890	-08	2168	Dec 29	08:19:33	369	2090	A	-0.1444	0.9215	31.6S	56.7E	82 300 09m52s
09934	-07	2187	Jan 09	16:23:41	410	2313	A	-0.1365	0.9224	30.0S	62.1W	82 296 09m51s
09979	-06	2205	Jan 21	00:27:32	454	2536	A	-0.1281	0.9241	27.5S	178.6E	82 289 09m42s
10023	-05	2223	Feb 01	08:29:43	499	2759	A	-0.1180	0.9263	24.1S	59.2E	83 279 09m26s
10067	-04	2241	Feb 11	16:28:39	546	2982	A	-0.1046	0.9292	19.9S	60.0W	84 267 09m04s
10112	-03	2259	Feb 23	00:23:41	596	3205	A	-0.0875	0.9326	15.0S	178.8W	85 253 08m36s
10157	-02	2277	Mar 05	08:11:55	647	3428	A	-0.0645	0.9366	9.5S	63.6E	86 236 08m04s
10203	-01	2295	Mar 16	15:54:34	701	3651	A	-0.0362	0.9409	3.6S	53.0W	88 219 07m29s
10248	00	2313	Mar 27	23:29:31	757	3874	A	-0.0011	0.9456	2.6N	167.9W	90 200 06m49s

10293	01	2331	Apr 08	06:57:09	815	4097	A	0.0408	0.9506	9.2N	79.0E	88	181	06m07s
10339	02	2349	Apr 18	14:16:52	874	4320	A	0.0899	0.9557	16.0N	32.1W	85	162	05m23s
10384	03	2367	Apr 29	21:30:03	936	4543	Am	0.1451	0.9607	22.8N	141.2W	82	144	04m38s
10428	04	2385	May 10	04:36:49	1000	4766	A	0.2063	0.9657	29.5N	111.9E	78	126	03m53s
10472	05	2403	May 21	11:36:55	1066	4989	A	0.2737	0.9705	36.1N	7.4E	74	110	03m10s
10515	06	2421	May 31	18:32:59	1135	5212	A	0.3451	0.9750	42.4N	95.0W	70	95	02m32s
10558	07	2439	Jun 12	01:25:22	1205	5435	A	0.4206	0.9791	48.2N	165.1E	65	82	01m59s
10601	08	2457	Jun 22	08:16:13	1277	5658	A	0.4979	0.9827	53.2N	67.4E	60	71	01m32s
10644	09	2475	Jul 03	15:05:22	1351	5881	A	0.5775	0.9858	57.3N	27.7W	54	62	01m11s
10686	10	2493	Jul 13	21:56:36	1428	6104	A	0.6562	0.9882	60.3N	121.4W	49	55	00m56s
10728	11	2511	Jul 26	04:49:26	1506	6327	A	0.7346	0.9899	62.1N	146.2E	42	52	00m45s
10768	12	2529	Aug 05	11:45:36	1587	6550	A	0.8109	0.9910	62.9N	53.9E	36	54	00m39s
10808	13	2547	Aug 16	18:46:36	1670	6773	A	0.8841	0.9910	63.0N	38.6W	28	67	00m37s
10848	14	2565	Aug 27	01:53:56	1754	6996	A	0.9527	0.9900	63.0N	129.3W	17	117	00m39s
10888	15	2583	Sep 07	09:09:01	1841	7219	P	1.0160	0.9596	61.3N	150.8E	0		
10929	16	2601	Sep 18	16:30:38	1930	7442	P	1.0746	0.8541	61.1N	32.1E	0		
10970	17	2619	Sep 30	00:02:28	2021	7665	P	1.1256	0.7620	61.2N	89.2W	0		
11011	18	2637	Oct 10	07:42:11	2114	7888	P	1.1709	0.6802	61.4N	147.6E	0		
11051	19	2655	Oct 21	15:32:13	2209	8111	P	1.2084	0.6123	61.7N	21.7E	0		
11092	20	2673	Oct 31	23:29:55	2306	8334	P	1.2404	0.5544	62.2N	106.2W	0		
11133	21	2691	Nov 12	07:38:14	2405	8557	P	1.2646	0.5105	62.8N	123.2E	0		
11175	22	2709	Nov 23	15:53:41	2507	8780	P	1.2837	0.4759	63.6N	9.5W	0		
11217	23	2727	Dec 05	00:17:21	2610	9003	P	1.2968	0.4521	64.4N	144.5W	0		
11260	24	2745	Dec 15	08:47:08	2716	9226	P	1.3057	0.4358	65.4N	78.7E	0		
11305	25	2763	Dec 26	17:23:22	2823	9449	P	1.3098	0.4283	66.4N	60.1W	0		
11349	26	2782	Jan 06	02:02:17	2933	9672	P	1.3126	0.4228	67.5N	159.9E	0		
11394	27	2800	Jan 17	10:43:57	3044	9895	P	1.3141	0.4200	68.6N	18.7E	0		
11439	28	2818	Jan 27	19:25:58	3158	10118	P	1.3157	0.4167	69.6N	123.1W	0		

11484	29	2836	Feb 08	04:08:21	3274	10341	P	1.3175	0.4130	70.5N	94.2E	0
11530	30	2854	Feb 18	12:46:44	3392	10564	P	1.3232	0.4021	71.2N	48.0W	0
11576	31	2872	Feb 29	21:22:44	3512	10787	P	1.3315	0.3864	71.7N	169.8E	0
11623	32	2890	Mar 12	05:52:26	3634	11010	P	1.3454	0.3600	72.0N	28.9E	0
11670	33	2908	Mar 23	14:18:02	3758	11233	P	1.3632	0.3262	72.1N	111.2W	0
11715	34	2926	Apr 03	22:34:55	3884	11456	P	1.3882	0.2785	71.9N	111.0E	0
11760	35	2944	Apr 14	06:47:04	4012	11679	P	1.4176	0.2219	71.4N	25.3W	0
11804	36	2962	Apr 25	14:50:32	4143	11902	P	1.4546	0.1507	70.8N	158.9W	0
11848	37	2980	May 05	22:48:34	4275	12125	Pe	1.4963	0.0697	70.0N	69.5E	0

SAROS SERIES

145

Saros series 145 contains 77 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

08634	-39	1639	Jan 04	04:56:19	65	-4465	Pb	1.5650	0.0009	64.6N	80.0E	0
-------	-----	------	--------	----------	----	-------	----	--------	--------	-------	-------	---

08679	-38	1657	Jan 14	13:08:11	39	-4242	P	1.5547	0.0171	63.7N	52.7W	0
08725	-37	1675	Jan 25	21:19:48	18	-4019	P	1.5434	0.0346	62.9N	175.1E	0
08770	-36	1693	Feb 05	05:27:09	8	-3796	P	1.5276	0.0597	62.2N	44.2E	0
08815	-35	1711	Feb 17	13:30:15	9	-3573	P	1.5077	0.0919	61.6N	85.4W	0
08860	-34	1729	Feb 27	21:27:02	10	-3350	P	1.4817	0.1347	61.2N	146.6E	0
08906	-33	1747	Mar 11	05:18:08	12	-3127	P	1.4504	0.1872	61.0N	20.2E	0
08951	-32	1765	Mar 21	13:01:45	15	-2904	P	1.4120	0.2524	61.0N	104.3W	0
08997	-31	1783	Apr 01	20:38:39	17	-2681	P	1.3671	0.3299	61.0N	132.8E	0
09042	-30	1801	Apr 13	04:08:06	13	-2458	P	1.3152	0.4208	61.3N	11.7E	0
09087	-29	1819	Apr 24	11:31:59	12	-2235	P	1.2579	0.5225	61.7N	108.0W	0
09132	-28	1837	May 04	18:48:28	5	-2012	P	1.1934	0.6381	62.3N	133.9E	0
09175	-27	1855	May 16	02:01:12	7	-1789	P	1.1249	0.7624	62.9N	16.6E	0
09218	-26	1873	May 26	09:08:56	-2	-1566	P	1.0513	0.8971	63.7N	99.6W	0
09260	-25	1891	Jun 06	16:15:36	-6	-1343	A	0.9754	0.9981	74.5N	163.8E	12 33 00m06s
09302	-24	1909	Jun 17	23:18:38	10	-1120	H	0.8957	1.0065	82.9N	123.6E	26 51 00m24s
09344	-23	1927	Jun 29	06:23:27	24	-897	T	0.8163	1.0128	78.1N	73.8E	35 77 00m50s
09387	-22	1945	Jul 09	13:27:45	27	-674	T	0.7356	1.0180	70.0N	17.2W	42 92 01m15s
09427	-21	1963	Jul 20	20:36:13	35	-451	T	0.6571	1.0224	61.7N	119.6W	49 101 01m40s
09467	-20	1981	Jul 31	03:46:37	52	-228	T	0.5792	1.0258	53.3N	134.1E	54 108 02m02s
09506	-19	1999	Aug 11	11:04:09	64	-5	T	0.5062	1.0286	45.1N	24.3E	59 112 02m23s
09546	-18	2017	Aug 21	18:26:40	70	218	T	0.4367	1.0306	37.0N	87.7W	64 115 02m40s
09586	-17	2035	Sep 02	01:56:46	81	441	T	0.3727	1.0320	29.1N	158.0E	68 116 02m54s
09626	-16	2053	Sep 12	09:34:09	100	664	T	0.3140	1.0328	21.5N	41.7E	72 116 03m04s
09668	-15	2071	Sep 23	17:20:28	139	887	T	0.2620	1.0333	14.2N	76.7W	75 116 03m11s
09709	-14	2089	Oct 04	01:15:23	179	1110	T	0.2167	1.0333	7.4N	162.8E	77 115 03m14s
09750	-13	2107	Oct 16	09:18:27	221	1333	T	0.1778	1.0332	1.1N	40.6E	80 114 03m16s
09791	-12	2125	Oct 26	17:30:49	265	1556	T	0.1461	1.0329	4.5S	83.6W	82 112 03m15s
09832	-11	2143	Nov 07	01:51:16	312	1779	T	0.1206	1.0326	9.4S	150.8E	83 111 03m14s

09874	-10	2161	Nov 17	10:19:30	353	2002	T	0.1012	1.0325	13.4S	23.6E	84	110	03m13s
09917	-09	2179	Nov 28	18:54:18	394	2225	T	0.0867	1.0325	16.5S	104.6W	85	110	03m12s
09961	-08	2197	Dec 09	03:35:07	436	2448	T	0.0769	1.0329	18.5S	126.0E	86	111	03m13s
10005	-07	2215	Dec 21	12:20:08	481	2671	T	0.0701	1.0336	19.5S	4.1W	86	114	03m14s
10049	-06	2233	Dec 31	21:07:37	527	2894	T	0.0649	1.0348	19.5S	134.7W	86	117	03m18s
10094	-05	2252	Jan 12	05:57:05	576	3117	T	0.0608	1.0365	18.5S	94.0E	87	123	03m23s
10139	-04	2270	Jan 22	14:46:29	627	3340	T	0.0560	1.0385	16.7S	37.3W	87	130	03m29s
10185	-03	2288	Feb 02	23:33:47	680	3563	T	0.0492	1.0412	14.2S	168.4W	87	138	03m38s
10230	-02	2306	Feb 14	08:17:49	735	3786	T	0.0394	1.0441	11.3S	61.0E	88	147	03m49s
10275	-01	2324	Feb 25	16:57:32	792	4009	Tm	0.0257	1.0475	8.1S	68.6W	89	158	04m02s
10320	00	2342	Mar 08	01:32:14	851	4232	T	0.0072	1.0511	4.9S	162.9E	90	169	04m16s
10366	01	2360	Mar 18	09:59:22	912	4455	T	-0.0177	1.0549	1.8S	36.4E	89	181	04m33s
10410	02	2378	Mar 29	18:20:23	975	4678	T	-0.0480	1.0587	1.1N	88.6W	87	193	04m51s
10454	03	2396	Apr 09	02:33:17	1040	4901	T	-0.0851	1.0625	3.4N	148.7E	85	206	05m12s
10497	04	2414	Apr 20	10:39:39	1107	5124	T	-0.1279	1.0661	5.0N	27.7E	83	218	05m33s
10540	05	2432	Apr 30	18:37:31	1177	5347	T	-0.1780	1.0694	5.8N	91.0W	80	229	05m56s
10583	06	2450	May 12	02:29:44	1248	5570	T	-0.2330	1.0722	5.6N	151.7E	77	241	06m19s
10626	07	2468	May 22	10:15:11	1322	5793	T	-0.2936	1.0744	4.2N	36.0E	73	252	06m41s
10669	08	2486	Jun 02	17:55:28	1398	6016	T	-0.3587	1.0760	1.8N	78.7W	69	263	06m59s
10711	09	2504	Jun 14	01:31:03	1475	6239	T	-0.4278	1.0769	1.9S	167.3E	65	275	07m10s
10752	10	2522	Jun 25	09:03:45	1555	6462	T	-0.4991	1.0769	6.6S	53.5E	60	287	07m12s
10793	11	2540	Jul 05	16:34:26	1637	6685	T	-0.5722	1.0760	12.4S	60.6W	55	300	07m04s
10833	12	2558	Jul 17	00:03:14	1721	6908	T	-0.6466	1.0742	19.2S	175.0W	50	315	06m43s
10873	13	2576	Jul 27	07:32:31	1807	7131	T	-0.7203	1.0714	26.9S	69.5E	44	334	06m12s
10913	14	2594	Aug 07	15:02:42	1895	7354	T	-0.7928	1.0676	35.6S	47.4W	37	361	05m32s
10954	15	2612	Aug 18	22:35:27	1985	7577	T	-0.8629	1.0629	45.2S	166.8W	30	407	04m45s
10995	16	2630	Aug 30	06:10:52	2077	7800	T	-0.9302	1.0568	56.1S	68.9E	21	514	03m53s
11035	17	2648	Sep 09	13:51:23	2171	8023	Ts	-0.9929	1.0479	70.1S	79.1W	5	-	02m48s

11075	18	2666	Sep 20	21:37:08	2268	8246	P	-1.0506	0.9186	72.2S	136.0E	0
11116	19	2684	Oct 01	05:28:03	2366	8469	P	-1.1036	0.8161	72.1S	4.5E	0
11158	20	2702	Oct 13	13:25:52	2467	8692	P	-1.1504	0.7261	71.8S	128.5W	0
11200	21	2720	Oct 23	21:30:13	2569	8915	P	-1.1917	0.6475	71.2S	97.2E	0
11243	22	2738	Nov 04	05:42:27	2674	9138	P	-1.2259	0.5827	70.5S	38.5W	0
11286	23	2756	Nov 14	13:59:51	2780	9361	P	-1.2556	0.5271	69.6S	174.9W	0
11331	24	2774	Nov 25	22:25:15	2889	9584	P	-1.2785	0.4846	68.6S	47.4E	0
11376	25	2792	Dec 06	06:55:37	3000	9807	P	-1.2973	0.4500	67.6S	91.0W	0
11421	26	2810	Dec 17	15:31:45	3113	10030	P	-1.3111	0.4248	66.5S	129.7E	0
11466	27	2828	Dec 28	00:10:20	3228	10253	P	-1.3228	0.4038	65.4S	9.7W	0
11512	28	2847	Jan 08	08:52:24	3345	10476	P	-1.3314	0.3886	64.5S	149.6W	0
11558	29	2865	Jan 18	17:34:21	3464	10699	P	-1.3398	0.3737	63.6S	70.9E	0
11604	30	2883	Jan 30	02:15:42	3585	10922	P	-1.3484	0.3583	62.8S	68.1W	0
11651	31	2901	Feb 10	10:54:17	3709	11145	P	-1.3590	0.3395	62.1S	153.8E	0
11697	32	2919	Feb 21	19:29:46	3834	11368	P	-1.3716	0.3168	61.7S	16.6E	0
11742	33	2937	Mar 04	03:58:34	3961	11591	P	-1.3893	0.2851	61.3S	118.8W	0
11786	34	2955	Mar 15	12:21:15	4091	11814	P	-1.4112	0.2456	61.2S	107.5E	0
11830	35	2973	Mar 25	20:35:44	4222	12037	P	-1.4393	0.1949	61.2S	24.2W	0
11874	36	2991	Apr 06	04:43:03	4356	12260	P	-1.4726	0.1346	61.4S	154.2W	0
-----	37	3009	Apr 17	12:39:22	4492	12483	Pe	-1.5141	0.0596	61.7S	78.6E	0

SAROS SERIES

146

Saros series 146 contains 76 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													
08408	-46	1541 Sep 19	20:34:01	157	-5668	Pb	-1.5140	0.0378	61.1S	135.3E	0		
08449	-45	1559 Oct 01	04:46:46	142	-5445	P	-1.4772	0.1083	61.3S	3.4E	0		
08490	-44	1577 Oct 11	13:08:02	130	-5222	P	-1.4473	0.1654	61.6S	130.8W	0		
08531	-43	1595 Nov 01	21:36:53	120	-4999	P	-1.4233	0.2111	62.1S	93.1E	0		
08572	-42	1613 Nov 12	06:12:15	102	-4776	P	-1.4048	0.2464	62.7S	44.9W	0		
08616	-41	1631 Nov 23	14:53:44	76	-4553	P	-1.3912	0.2723	63.5S	175.4E	0		
08661	-40	1649 Dec 03	23:40:37	49	-4330	P	-1.3820	0.2896	64.4S	34.1E	0		
08707	-39	1667 Dec 15	08:29:59	26	-4107	P	-1.3752	0.3024	65.3S	108.2W	0		
08752	-38	1685 Dec 25	17:22:35	11	-3884	P	-1.3710	0.3102	66.4S	108.3E	0		
08797	-37	1704 Jan 07	02:14:51	9	-3661	P	-1.3669	0.3177	67.4S	35.5W	0		
08842	-36	1722 Jan 17	11:07:10	10	-3438	P	-1.3629	0.3251	68.5S	179.9W	0		
08888	-35	1740 Jan 28	19:54:59	12	-3215	P	-1.3555	0.3387	69.5S	36.2E	0		
08934	-34	1758 Feb 08	04:40:52	14	-2992	P	-1.3468	0.3549	70.4S	107.8W	0		
08979	-33	1776 Feb 19	13:20:11	16	-2769	P	-1.3334	0.3800	71.1S	109.2E	0		
09025	-32	1794 Mar 01	21:54:00	15	-2546	P	-1.3155	0.4136	71.6S	32.9W	0		
09070	-31	1812 Mar 13	06:19:30	12	-2323	P	-1.2913	0.4594	71.9S	173.3W	0		
09115	-30	1830 Mar 24	14:38:43	7	-2100	P	-1.2622	0.5148	72.0S	47.7E	0		

09159	-29	1848	Apr 03	22:49:07	7	-1877	P	-1.2264	0.5834	71.8S	89.0W	0
09202	-28	1866	Apr 15	06:51:40	5	-1654	P	-1.1846	0.6637	71.4S	136.6E	0
09244	-27	1884	Apr 25	14:46:17	-6	-1431	P	-1.1365	0.7563	70.7S	4.6E	0
09286	-26	1902	May 07	22:34:16	0	-1208	P	-1.0831	0.8593	70.0S	125.1W	0
09328	-25	1920	May 18	06:14:55	21	-985	P	-1.0239	0.9734	69.1S	107.7E	0
09371	-24	1938	May 29	13:50:19	24	-762	T	-0.9607	1.0552	52.7S	22.0W	16 675 04m05s
09412	-23	1956	Jun 08	21:20:39	32	-539	T	-0.8934	1.0581	40.8S	140.7W	26 429 04m45s
09452	-22	1974	Jun 20	04:48:04	45	-316	T	-0.8239	1.0592	32.1S	103.7E	34 344 05m09s
09491	-21	1992	Jun 30	12:11:22	59	-93	T	-0.7512	1.0592	25.2S	9.5W	41 294 05m21s
09530	-20	2010	Jul 11	19:34:38	67	130	T	-0.6788	1.0580	19.7S	121.9W	47 259 05m20s
09570	-19	2028	Jul 22	02:56:40	77	353	T	-0.6056	1.0560	15.6S	126.7E	53 230 05m10s
09610	-18	2046	Aug 02	10:21:13	90	576	T	-0.5350	1.0531	12.7S	15.2E	58 206 04m51s
09651	-17	2064	Aug 12	17:46:06	123	799	T	-0.4652	1.0495	10.9S	96.0W	62 184 04m28s
09692	-16	2082	Aug 24	01:16:21	163	1022	T	-0.4004	1.0452	10.3S	151.8E	66 163 04m01s
09734	-15	2100	Sep 04	08:49:20	204	1245	T	-0.3384	1.0402	10.5S	39.0E	70 142 03m32s
09775	-14	2118	Sep 15	16:28:26	248	1468	T	-0.2823	1.0349	11.5S	75.2W	74 122 03m04s
09816	-13	2136	Sep 26	00:12:14	293	1691	T	-0.2309	1.0292	13.0S	169.4E	77 101 02m34s
09858	-12	2154	Oct 07	08:03:50	338	1914	T	-0.1867	1.0234	15.1S	52.1E	79 81 02m05s
09900	-11	2172	Oct 17	16:01:36	378	2137	H3	-0.1484	1.0174	17.3S	66.6W	81 60 01m34s
09944	-10	2190	Oct 29	00:05:50	419	2360	H	-0.1161	1.0116	19.6S	173.2E	83 40 01m04s
09989	-09	2208	Nov 09	08:17:12	463	2583	H	-0.0905	1.0059	21.8S	51.4E	85 20 00m34s
10032	-08	2226	Nov 20	16:34:56	509	2806	Hm	-0.0711	1.0005	23.7S	71.7W	86 2 00m03s
10076	-07	2244	Dec 01	00:58:17	557	3029	A	-0.0568	0.9955	25.1S	164.0E	87 16 00m27s
10121	-06	2262	Dec 12	09:25:02	607	3252	A	-0.0461	0.9910	25.8S	39.0E	87 32 00m56s
10166	-05	2280	Dec 22	17:55:44	659	3475	A	-0.0392	0.9870	25.8S	86.8W	88 46 01m23s
10212	-04	2299	Jan 03	02:27:43	713	3698	A	-0.0341	0.9836	24.9S	146.9E	88 58 01m47s
10257	-03	2317	Jan 14	10:59:38	769	3921	A	-0.0298	0.9807	23.2S	20.5E	88 69 02m08s
10303	-02	2335	Jan 25	19:29:43	827	4144	A	-0.0247	0.9784	20.6S	105.9W	88 77 02m25s

10349	-01	2353	Feb 05	03:56:55	887	4367	A	-0.0179	0.9766	17.1S	128.0E	89	84	02m38s
10394	00	2371	Feb 16	12:18:49	950	4590	A	-0.0075	0.9753	12.9S	2.7E	89	88	02m48s
10437	01	2389	Feb 26	20:33:52	1014	4813	A	0.0078	0.9744	8.1S	121.3W	90	92	02m55s
10481	02	2407	Mar 10	04:41:40	1081	5036	A	0.0283	0.9739	2.7S	116.1E	88	93	02m59s
10524	03	2425	Mar 20	12:41:12	1149	5259	A	0.0546	0.9735	3.1N	4.7W	87	95	03m02
10567	04	2443	Mar 31	20:30:25	1220	5482	A	0.0889	0.9734	9.3N	123.1W	85	95	03m02s
10610	05	2461	Apr 11	04:10:36	1293	5705	A	0.1300	0.9732	15.8N	120.8E	82	97	03m02s
10652	06	2479	Apr 22	11:40:30	1367	5928	A	0.1790	0.9731	22.5N	7.5E	80	98	03m01s
10694	07	2497	May 02	19:01:52	1444	6151	A	0.2341	0.9727	29.2N	103.2W	76	100	02m59s
10736	08	2515	May 15	02:12:11	1523	6374	A	0.2976	0.9722	36.0N	149.4E	72	104	02m57s
10777	09	2533	May 25	09:15:50	1604	6597	A	0.3660	0.9712	42.6N	44.8E	68	111	02m56s
10817	10	2551	Jun 05	16:10:40	1687	6820	A	0.4411	0.9699	49.0N	56.1W	64	121	02m55s
10857	11	2569	Jun 15	23:00:08	1773	7043	A	0.5197	0.9680	54.8N	153.7W	58	135	02m56s
10897	12	2587	Jun 27	05:42:58	1860	7266	A	0.6029	0.9656	59.9N	113.1E	53	156	02m58s
10938	13	2605	Jul 08	12:23:21	1949	7489	A	0.6873	0.9626	64.0N	24.0E	46	186	03m03s
10979	14	2623	Jul 19	19:00:06	2040	7712	A	0.7738	0.9589	66.8N	60.2W	39	235	03m10s
11019	15	2641	Jul 30	01:35:56	2134	7935	A	0.8602	0.9545	68.1N	140.0W	30	326	03m20s
11059	16	2659	Aug 10	08:11:51	2229	8158	A	0.9454	0.9487	67.6N	146.8E	19	584	03m30s
11100	17	2677	Aug 20	14:50:18	2327	8381	P	1.0277	0.9182	61.7N	81.5E	0		
11142	18	2695	Aug 31	21:32:02	2427	8604	P	1.1064	0.7816	61.3N	27.3W	0		
11184	19	2713	Sep 12	04:18:12	2528	8827	P	1.1807	0.6536	61.1N	137.1W	0		
11227	20	2731	Sep 23	11:10:46	2632	9050	P	1.2491	0.5366	61.0N	111.6E	0		
11270	21	2749	Oct 03	18:09:52	2738	9273	P	1.3115	0.4305	61.1N	1.4W	0		
11315	22	2767	Oct 15	01:16:22	2846	9496	P	1.3673	0.3366	61.4N	116.2W	0		
11359	23	2785	Oct 25	08:31:14	2956	9719	P	1.4158	0.2555	61.8N	126.8E	0		
11404	24	2803	Nov 05	15:54:34	3068	9942	P	1.4572	0.1871	62.3N	7.6E	0		
11449	25	2821	Nov 15	23:26:43	3182	10165	P	1.4912	0.1314	63.0N	114.0W	0		
11494	26	2839	Nov 27	07:05:15	3299	10388	P	1.5198	0.0847	63.8N	122.6E	0		

11540 27 2857 Dec 07 14:52:22 3417 10611 P 1.5412 0.0502 64.8N 3.2W 0

11586 28 2875 Dec 18 22:44:21 3537 10834 P 1.5581 0.0230 65.8N 130.6W 0

11633 29 2893 Dec 29 06:42:03 3660 11057 Pe 1.5706 0.0028 66.8N 100.1E 0

SAROS SERIES

147

Saros series 147 contains 80 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

08599 -35 1624 Oct 12 08:53:55 87 -4641 Pb 1.5466 0.0089 71.5N 109.9E 0

08644 -34 1642 Oct 23 16:48:36 60 -4418 P 1.5221 0.0551 71.0N 22.5W 0

08689 -33 1660 Nov 03 00:50:39 34 -4195 P 1.5038 0.0898 70.3N 156.2W 0

08735 -32 1678 Nov 14 08:58:14 15 -3972 P 1.4908 0.1148 69.4N 69.4E 0

08780 -31 1696 Nov 24 17:10:41 8 -3749 P 1.4822 0.1318 68.4N 65.6W 0

08825 -30 1714 Dec 07 01:27:09 10 -3526 P 1.4772 0.1420 67.4N 159.0E 0

08870 -29 1732 Dec 17 09:46:57 11 -3303 P 1.4751 0.1470 66.3N 23.4E 0

08916	-28	1750	Dec 28	18:06:51	13	-3080	P	1.4737	0.1506	65.3N	111.8W	0
08961	-27	1769	Jan 08	02:26:42	16	-2857	P	1.4728	0.1530	64.3N	113.5E	0
09007	-26	1787	Jan 19	10:43:13	17	-2634	P	1.4697	0.1591	63.4N	20.1W	0
09052	-25	1805	Jan 30	18:57:01	12	-2411	P	1.4651	0.1675	62.7N	152.8W	0
09097	-24	1823	Feb 11	03:03:02	11	-2188	P	1.4546	0.1856	62.0N	76.7E	0
09141	-23	1841	Feb 21	11:03:56	5	-1965	P	1.4406	0.2095	61.5N	52.4W	0
09184	-22	1859	Mar 04	18:54:49	7	-1742	P	1.4192	0.2461	61.2N	178.8W	0
09226	-21	1877	Mar 15	02:38:09	-4	-1519	P	1.3924	0.2917	61.0N	56.7E	0
09268	-20	1895	Mar 26	10:09:33	-6	-1296	P	1.3565	0.3531	61.0N	64.8W	0
09310	-19	1913	Apr 06	17:33:07	15	-1073	P	1.3147	0.4244	61.2N	175.7E	0
09353	-18	1931	Apr 18	00:45:35	24	-850	P	1.2643	0.5107	61.5N	58.9E	0
09396	-17	1949	Apr 28	07:48:53	29	-627	P	1.2068	0.6092	61.9N	55.7W	0
09436	-16	1967	May 09	14:42:48	38	-404	P	1.1422	0.7201	62.5N	168.1W	0
09476	-15	1985	May 19	21:29:38	55	-181	P	1.0720	0.8406	63.2N	81.1E	0
09515	-14	2003	May 31	04:09:22	64	42	An	0.9960	0.9384	66.6N	24.5W	3 - 03m37s
09555	-13	2021	Jun 10	10:43:07	72	265	A	0.9152	0.9435	80.8N	66.8W	23 527 03m51s
09595	-12	2039	Jun 21	17:12:54	84	488	A	0.8312	0.9454	78.9N	102.1W	33 365 04m05s
09635	-11	2057	Jul 01	23:40:15	108	711	A	0.7455	0.9464	71.5N	176.2W	41 298 04m22s
09676	-10	2075	Jul 13	06:05:44	147	934	A	0.6583	0.9467	63.1N	95.2E	49 262 04m45s
09717	-09	2093	Jul 23	12:32:04	187	1157	A	0.5717	0.9463	54.6N	1.3E	55 241 05m11s
09758	-08	2111	Aug 04	19:00:22	230	1380	A	0.4867	0.9455	46.0N	95.3W	61 230 05m42s
09799	-07	2129	Aug 15	01:33:05	275	1603	A	0.4055	0.9442	37.4N	165.8E	66 225 06m15s
09841	-06	2147	Aug 26	08:09:15	322	1826	A	0.3271	0.9425	29.0N	65.2E	71 224 06m49s
09883	-05	2165	Sep 05	14:52:45	362	2049	A	0.2549	0.9406	20.7N	37.5W	75 227 07m22s
09927	-04	2183	Sep 16	21:42:37	403	2272	A	0.1877	0.9384	12.8N	141.9W	79 233 07m53s
09971	-03	2201	Sep 28	04:41:51	446	2495	A	0.1281	0.9361	5.2N	111.4E	83 240 08m21s
10015	-02	2219	Oct 09	11:48:35	491	2718	A	0.0744	0.9338	2.0S	3.0E	86 248 08m46s
10059	-01	2237	Oct 19	19:06:04	538	2941	A	0.0295	0.9316	8.6S	107.6W	88 256 09m07s

10103	00	2255	Oct 31	02:32:04	587	3164	A	-0.0088	0.9295	14.5S	140.2E	89	264	09m24s
10148	01	2273	Nov 10	10:07:17	638	3387	A	-0.0398	0.9278	19.6S	26.3E	88	272	09m34s
10194	02	2291	Nov 21	17:50:53	691	3610	A	-0.0644	0.9263	23.7S	88.9W	86	278	09m41s
10239	03	2309	Dec 03	01:42:05	746	3833	A	-0.0832	0.9254	26.9S	154.6E	85	282	09m40s
10284	04	2327	Dec 14	09:39:47	804	4056	A	-0.0969	0.9250	28.8S	37.0E	84	284	09m34s
10330	05	2345	Dec 24	17:41:04	863	4279	Am	-0.1081	0.9252	29.7S	81.1W	84	284	09m21s
10376	06	2364	Jan 05	01:46:48	925	4502	A	-0.1161	0.9259	29.4S	159.7E	83	281	09m03s
10420	07	2382	Jan 15	09:53:22	988	4725	A	-0.1241	0.9274	28.1S	40.1E	83	275	08m40s
10464	08	2400	Jan 26	18:00:10	1054	4948	A	-0.1322	0.9295	26.0S	79.9W	82	267	08m13s
10507	09	2418	Feb 06	02:04:04	1122	5171	A	-0.1431	0.9322	23.3S	160.5E	82	256	07m43s
10550	10	2436	Feb 17	10:05:24	1192	5394	A	-0.1567	0.9355	20.2S	41.1E	81	243	07m12s
10593	11	2454	Feb 27	18:01:47	1264	5617	A	-0.1750	0.9393	17.0S	77.3W	80	228	06m40s
10635	12	2472	Mar 10	01:52:11	1338	5840	A	-0.1989	0.9436	13.9S	165.6E	78	212	06m08s
10677	13	2490	Mar 21	09:36:11	1414	6063	A	-0.2288	0.9482	11.1S	50.0E	77	195	05m36s
10719	14	2508	Apr 01	17:13:22	1492	6286	A	-0.2648	0.9532	8.7S	63.9W	75	177	05m06s
10760	15	2526	Apr 13	00:43:02	1572	6509	A	-0.3077	0.9583	7.1S	175.8W	72	158	04m35s
10801	16	2544	Apr 23	08:05:34	1654	6732	A	-0.3575	0.9635	6.3S	74.0E	69	140	04m05s
10841	17	2562	May 04	15:21:29	1739	6955	A	-0.4133	0.9686	6.5S	34.5W	66	123	03m35s
10881	18	2580	May 14	22:32:12	1825	7178	A	-0.4743	0.9735	7.9S	141.9W	62	107	03m04s
10922	19	2598	May 26	05:36:09	1914	7401	A	-0.5415	0.9782	10.6S	112.1E	57	91	02m34s
10963	20	2616	Jun 06	12:37:18	2004	7624	A	-0.6115	0.9824	14.5S	6.3E	52	78	02m04s
11004	21	2634	Jun 17	19:34:22	2097	7847	A	-0.6854	0.9862	19.8S	99.1W	47	67	01m36s
11043	22	2652	Jun 28	02:31:12	2191	8070	A	-0.7603	0.9892	26.5S	154.7E	40	58	01m11s
11084	23	2670	Jul 09	09:25:19	2288	8293	A	-0.8379	0.9915	35.0S	48.0E	33	55	00m52s
11125	24	2688	Jul 19	16:22:31	2387	8516	A	-0.9136	0.9926	45.6S	61.4W	24	64	00m41s
11167	25	2706	Jul 31	23:20:38	2488	8739	A	-0.9889	0.9911	63.0S	178.8W	7	240	00m41s
11209	26	2724	Aug 11	06:23:26	2591	8962	P	-1.0610	0.8797	70.5S	56.2E	0		
11252	27	2742	Aug 22	13:29:55	2696	9185	P	-1.1308	0.7534	71.2S	63.0W	0		

11296	28	2760	Sep 01	20:44:19	2803	9408	P	-1.1947	0.6372	71.7S	175.4E	0
11341	29	2778	Sep 13	04:05:03	2912	9631	P	-1.2541	0.5291	72.0S	51.8E	0
11386	30	2796	Sep 23	11:33:43	3024	9854	P	-1.3078	0.4310	72.1S	74.0W	0
11431	31	2814	Oct 04	19:10:43	3137	10077	P	-1.3554	0.3440	71.9S	158.2E	0
11476	32	2832	Oct 15	02:57:22	3252	10300	P	-1.3962	0.2695	71.6S	28.3E	0
11522	33	2850	Oct 26	10:52:49	3370	10523	P	-1.4306	0.2068	71.0S	103.5W	0
11568	34	2868	Nov 05	18:57:09	3489	10746	P	-1.4586	0.1556	70.2S	123.1E	0
11615	35	2886	Nov 17	03:10:24	3611	10969	P	-1.4801	0.1162	69.3S	12.0W	0
11662	36	2904	Nov 28	11:32:06	3735	11192	P	-1.4959	0.0874	68.3S	148.6W	0
11707	37	2922	Dec 09	19:59:54	3861	11415	P	-1.5074	0.0662	67.3S	73.9E	0
11752	38	2940	Dec 20	04:34:38	3988	11638	P	-1.5142	0.0534	66.2S	64.9W	0
11796	39	2958	Dec 31	13:13:25	4118	11861	P	-1.5186	0.0450	65.2S	155.8E	0
11840	40	2977	Jan 10	21:56:20	4250	12084	P	-1.5202	0.0413	64.3S	15.9E	0
11884	41	2995	Jan 22	06:39:24	4384	12307	P	-1.5225	0.0363	63.5S	123.8W	0
-----	42	3013	Feb 02	15:24:30	4521	12530	P	-1.5238	0.0326	62.8S	96.3E	0
-----	43	3031	Feb 14	00:07:22	4659	12753	P	-1.5280	0.0236	62.2S	42.8W	0
-----	44	3049	Feb 24	08:48:07	4799	12976	Pe	-1.5342	0.0104	61.7S	178.7E	0

SAROS SERIES

148

Saros series 148 contains 75 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08671	-35	1653 Sep 21	15:55:44	44	-4283	Pb	-1.5450	0.0324	61.0S	149.7W	0		
08717	-34	1671 Oct 02	23:13:22	22	-4060	P	-1.4952	0.1177	61.0S	92.1E	0		
08762	-33	1689 Oct 13	06:40:02	9	-3837	P	-1.4517	0.1920	61.2S	28.3W	0		
08807	-32	1707 Oct 25	14:17:22	9	-3614	P	-1.4161	0.2528	61.6S	151.3W	0		
08852	-31	1725 Nov 04	22:02:52	10	-3391	P	-1.3861	0.3038	62.1S	83.5E	0		
08898	-30	1743 Nov 16	05:58:25	12	-3168	P	-1.3634	0.3424	62.8S	44.4W	0		
08943	-29	1761 Nov 26	14:00:27	15	-2945	P	-1.3451	0.3732	63.7S	174.2W	0		
08989	-28	1779 Dec 07	22:08:56	17	-2722	P	-1.3315	0.3962	64.6S	54.2E	0		
09034	-27	1797 Dec 18	06:21:51	14	-2499	P	-1.3208	0.4142	65.6S	79.0W	0		
09079	-26	1815 Dec 30	14:38:39	12	-2276	P	-1.3129	0.4273	66.7S	146.4E	0		
09124	-25	1834 Jan 09	22:55:31	6	-2053	P	-1.3043	0.4418	67.8S	11.3E	0		
09168	-24	1852 Jan 21	07:12:16	7	-1830	P	-1.2948	0.4577	68.9S	124.3W	0		
09210	-23	1870 Jan 31	15:26:25	1	-1607	P	-1.2829	0.4781	69.9S	100.0E	0		
09252	-22	1888 Feb 11	23:38:15	-6	-1384	P	-1.2684	0.5029	70.7S	35.7W	0		
09294	-21	1906 Feb 23	07:43:20	5	-1161	P	-1.2479	0.5386	71.4S	170.3W	0		
09336	-20	1924 Mar 05	15:44:20	24	-938	P	-1.2232	0.5819	71.9S	55.6E	0		
09379	-19	1942 Mar 16	23:37:07	25	-715	P	-1.1908	0.6393	72.2S	76.8W	0		
09420	-18	1960 Mar 27	07:25:07	33	-492	P	-1.1537	0.7058	72.1S	151.9E	0		
09460	-17	1978 Apr 07	15:03:47	49	-269	P	-1.1081	0.7883	71.9S	23.3E	0		
09499	-16	1996 Apr 17	22:38:12	62	-46	P	-1.0580	0.8799	71.3S	104.0W	0		
09539	-15	2014 Apr 29	06:04:33	69	177	A-	-1.0000	0.9868	70.6S	131.3E	0		

09579	-14	2032	May 09	13:26:42	79	400	A	-0.9375	0.9957	51.3S	7.1W	20	44	00m22s
09619	-13	2050	May 20	20:42:50	94	623	H	-0.8688	1.0038	40.1S	123.7W	29	27	00m21s
09660	-12	2068	May 31	03:56:39	131	846	T	-0.7970	1.0110	31.0S	123.2E	37	63	01m06s
09701	-11	2086	Jun 11	11:07:14	171	1069	T	-0.7215	1.0174	23.2S	12.5E	44	86	01m48s
09742	-10	2104	Jun 22	18:16:21	213	1292	T	-0.6438	1.0231	16.6S	96.8W	50	103	02m26s
09783	-09	2122	Jul 04	01:25:31	257	1515	T	-0.5649	1.0280	11.0S	154.7E	56	114	02m56s
09824	-08	2140	Jul 14	08:36:11	303	1738	T	-0.4861	1.0322	6.7S	46.5E	61	124	03m18s
09866	-07	2158	Jul 25	15:49:17	346	1961	T	-0.4087	1.0356	3.4S	61.8W	66	131	03m32s
09909	-06	2176	Aug 04	23:05:55	386	2184	T	-0.3333	1.0383	1.3S	170.5W	71	136	03m40s
09953	-05	2194	Aug 16	06:28:08	428	2407	T	-0.2616	1.0403	0.2S	79.6E	75	139	03m44s
09998	-04	2212	Aug 27	13:56:17	473	2630	T	-0.1940	1.0416	0.1S	31.7W	79	142	03m45s
10042	-03	2230	Sep 07	21:30:39	519	2853	T	-0.1309	1.0424	0.7S	144.5W	82	143	03m44s
10086	-02	2248	Sep 18	05:13:07	567	3076	T	-0.0738	1.0426	2.0S	100.6E	86	143	03m42s
10131	-01	2266	Sep 29	13:03:57	617	3299	T	-0.0233	1.0425	3.7S	16.4W	89	142	03m40s
10176	00	2284	Oct 09	21:03:48	670	3522	T	0.0205	1.0420	5.7S	135.8W	89	140	03m39s
10221	01	2302	Oct 22	05:11:16	724	3745	T	0.0584	1.0413	7.8S	102.9E	87	139	03m38s
10266	02	2320	Nov 01	13:28:19	781	3968	Tm	0.0888	1.0406	9.8S	20.8W	85	136	03m38s
10311	03	2338	Nov 12	21:52:54	840	4191	T	0.1131	1.0399	11.7S	146.4W	84	134	03m38s
10357	04	2356	Nov 23	06:24:55	900	4414	T	0.1317	1.0394	13.2S	86.3E	83	133	03m40s
10402	05	2374	Dec 04	15:02:56	963	4637	T	0.1455	1.0390	14.1S	42.4W	82	132	03m42s
10446	06	2392	Dec 14	23:46:26	1028	4860	T	0.1550	1.0391	14.5S	172.4W	81	133	03m46s
10490	07	2410	Dec 26	08:33:58	1095	5083	T	0.1613	1.0395	14.1S	56.6E	81	134	03m50s
10533	08	2429	Jan 05	17:22:56	1164	5306	T	0.1666	1.0404	13.0S	74.9W	80	137	03m56s
10576	09	2447	Jan 17	02:14:03	1235	5529	T	0.1703	1.0417	11.1S	152.9E	80	141	04m03s
10619	10	2465	Jan 27	11:03:49	1308	5752	T	0.1751	1.0435	8.3S	20.8E	80	147	04m11s
10661	11	2483	Feb 07	19:51:56	1383	5975	T	0.1817	1.0457	4.8S	111.2W	80	155	04m20s
10703	12	2501	Feb 19	04:35:21	1461	6198	T	0.1925	1.0483	0.6S	117.7E	79	163	04m31s
10744	13	2519	Mar 02	13:15:24	1540	6421	T	0.2062	1.0511	4.2N	12.9W	78	173	04m42s

10785	14	2537	Mar 12	21:49:07	1622	6644	T	0.2254	1.0542	9.5N 142.2W	77	184	04m53s
10825	15	2555	Mar 24	06:16:23	1705	6867	T	0.2502	1.0574	15.2N 90.0E	75	195	05m04s
10865	16	2573	Apr 03	14:36:16	1791	7090	T	0.2815	1.0606	21.4N 35.9W	74	207	05m13s
10905	17	2591	Apr 14	22:49:07	1878	7313	T	0.3189	1.0637	27.7N 160.0W	71	220	05m19s
10947	18	2609	Apr 26	06:54:26	1968	7536	T	0.3627	1.0665	34.2N 78.2E	69	233	05m23s
10988	19	2627	May 07	14:52:04	2060	7759	T	0.4129	1.0688	40.8N 41.0W	65	246	05m22s
11028	20	2645	May 17	22:43:18	2154	7982	T	0.4686	1.0707	47.4N 157.7W	62	261	05m16s
11068	21	2663	May 29	06:28:21	2250	8205	T	0.5295	1.0719	53.7N 88.7E	58	276	05m07s
11109	22	2681	Jun 08	14:07:31	2348	8428	T	0.5953	1.0724	59.7N 21.1W	53	294	04m54s
11151	23	2699	Jun 19	21:42:32	2448	8651	T	0.6645	1.0720	64.9N 126.6W	48	314	04m38s
11193	24	2717	Jul 01	05:13:30	2550	8874	T	0.7368	1.0707	69.2N 133.9E	42	342	04m20s
11235	25	2735	Jul 12	12:43:11	2654	9097	T	0.8101	1.0682	71.7N 40.5E	36	381	03m59s
11278	26	2753	Jul 22	20:10:02	2761	9320	T	0.8853	1.0646	72.2N 46.7W	27	458	03m35s
11323	27	2771	Aug 03	03:38:34	2869	9543	T	0.9590	1.0590	69.6N 129.5W	16	704	03m05s
11368	28	2789	Aug 13	11:07:04	2979	9766	P	1.0325	0.9580	62.1N 146.1E	0		
11413	29	2807	Aug 24	18:39:28	3092	9989	P	1.1023	0.8227	61.7N 24.5E	0		
11458	30	2825	Sep 04	02:13:41	3207	10212	P	1.1700	0.6920	61.3N 97.3W	0		
11504	31	2843	Sep 15	09:54:00	3323	10435	P	1.2325	0.5724	61.2N 139.4E	0		
11550	32	2861	Sep 25	17:38:14	3442	10658	P	1.2912	0.4607	61.2N 15.1E	0		
11596	33	2879	Oct 07	01:29:04	3563	10881	P	1.3441	0.3612	61.3N 110.8W	0		
11643	34	2897	Oct 17	09:25:31	3686	11104	P	1.3918	0.2723	61.6N 121.9E	0		
11689	35	2915	Oct 29	17:29:53	3811	11327	P	1.4323	0.1978	62.1N 7.5W	0		
11734	36	2933	Nov 09	01:40:31	3938	11550	P	1.4676	0.1339	62.6N 138.6W	0		
11778	37	2951	Nov 20	09:57:41	4067	11773	P	1.4970	0.0814	63.4N 88.5E	0		
11822	38	2969	Nov 30	18:20:54	4198	11996	P	1.5210	0.0393	64.2N 46.2W	0		
11866	39	2987	Dec 12	02:50:04	4331	12219	Pe	1.5396	0.0074	65.2N 177.4E	0		

SAROS SERIES

149

Saros series 149 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08698	-37	1664 Aug 21	08:58:23	29	-4148	Pb	1.4870	0.0844	71.0N	173.8E	0		
08744	-36	1682 Sep 01	16:42:24	13	-3925	P	1.4279	0.1978	71.5N	44.3E	0		
08789	-35	1700 Sep 13	00:34:18	8	-3702	P	1.3749	0.2996	71.9N	87.6W	0		
08834	-34	1718 Sep 24	08:34:20	10	-3479	P	1.3282	0.3889	72.0N	138.3E	0		
08880	-33	1736 Oct 04	16:41:34	11	-3256	P	1.2874	0.4670	71.9N	2.4E	0		
08926	-32	1754 Oct 16	00:57:46	14	-3033	P	1.2535	0.5314	71.5N	135.5W	0		
08971	-31	1772 Oct 26	09:21:18	16	-2810	P	1.2255	0.5846	70.9N	85.1E	0		
09017	-30	1790 Nov 06	17:53:11	16	-2587	P	1.2044	0.6245	70.1N	55.8W	0		
09062	-29	1808 Nov 18	02:30:03	12	-2364	P	1.1874	0.6564	69.2N	162.6E	0		
09107	-28	1826 Nov 29	11:14:08	9	-2141	P	1.1764	0.6770	68.2N	19.9E	0		
09151	-27	1844 Dec 09	20:01:39	6	-1918	P	1.1682	0.6924	67.1N	123.0W	0		

09194	-26	1862	Dec 21	04:53:03	7	-1695	P	1.1633	0.7016	66.0N	93.6E	0
09236	-25	1880	Dec 31	13:45:01	-5	-1472	P	1.1591	0.7096	65.0N	49.5W	0
09278	-24	1899	Jan 11	22:38:02	-4	-1249	P	1.1558	0.7158	64.0N	167.5E	0
09320	-23	1917	Jan 23	07:28:31	19	-1026	P	1.1508	0.7254	63.2N	25.6E	0
09363	-22	1935	Feb 03	16:16:20	24	-803	P	1.1438	0.7390	62.5N	115.4W	0
09404	-21	1953	Feb 14	00:59:30	30	-580	P	1.1331	0.7596	61.9N	104.9E	0
09444	-20	1971	Feb 25	09:38:07	41	-357	P	1.1188	0.7872	61.4N	33.5W	0
09484	-19	1989	Mar 07	18:08:41	56	-134	P	1.0981	0.8268	61.2N	169.8W	0
09523	-18	2007	Mar 19	02:32:57	65	89	P	1.0728	0.8756	61.0N	55.5E	0
09563	-17	2025	Mar 29	10:48:36	75	312	P	1.0405	0.9376	61.1N	77.1W	0
09603	-16	2043	Apr 09	18:57:49	87	535	T+	1.0031	1.0095	61.3N	152.0E	0
09644	-15	2061	Apr 20	02:56:49	116	758	T	0.9578	1.0475	64.5N	59.2E	16 559 02m37s
09685	-14	2079	May 01	10:50:13	155	981	T	0.9081	1.0512	66.2N	46.3W	24 406 02m55s
09726	-13	2097	May 11	18:34:31	196	1204	T	0.8516	1.0538	67.4N	149.5W	31 339 03m10s
09767	-12	2115	May 24	02:13:56	239	1427	T	0.7912	1.0557	67.8N	109.4E	37 301 03m24s
09807	-11	2133	Jun 03	09:45:16	285	1650	T	0.7247	1.0567	66.6N	10.7E	43 272 03m36s
09849	-10	2151	Jun 14	17:13:45	331	1873	T	0.6561	1.0569	63.7N	89.4W	49 249 03m48s
09891	-09	2169	Jun 25	00:37:09	370	2096	T	0.5841	1.0562	59.2N	168.6E	54 229 03m58s
09935	-08	2187	Jul 06	07:58:31	412	2319	T	0.5109	1.0548	53.6N	63.8E	59 211 04m06s
09980	-07	2205	Jul 17	15:18:00	455	2542	T	0.4367	1.0525	47.2N	43.0W	64 193 04m10s
10024	-06	2223	Jul 28	22:38:03	500	2765	T	0.3636	1.0495	40.2N	151.7W	68 176 04m09s
10068	-05	2241	Aug 08	05:59:21	548	2988	T	0.2920	1.0457	32.9N	98.0E	73 159 04m02s
10113	-04	2259	Aug 19	13:22:17	597	3211	T	0.2226	1.0412	25.3N	13.6W	77 141 03m49s
10158	-03	2277	Aug 29	20:49:11	649	3434	T	0.1573	1.0362	17.8N	126.7W	81 123 03m28s
10204	-02	2295	Sep 10	04:20:19	703	3657	Tm	0.0963	1.0307	10.3N	118.9E	84 104 03m01s
10249	-01	2313	Sep 21	11:57:00	758	3880	T	0.0405	1.0249	3.0N	3.0E	88 85 02m30s
10294	00	2331	Oct 02	19:39:16	816	4103	T	-0.0097	1.0188	4.0S	114.2W	89 64 01m55s
10340	01	2349	Oct 13	03:28:54	876	4326	H	-0.0532	1.0126	10.6S	127.2E	87 43 01m18s

10385	02	2367	Oct 24	11:25:04	938	4549	H	-0.0902	1.0065	16.7S	7.3E	85	22	00m40s
10429	03	2385	Nov 03	19:27:30	1002	4772	H	-0.1212	1.0004	22.1S	113.5W	83	2	00m03s
10473	04	2403	Nov 15	03:36:25	1068	4995	A	-0.1461	0.9947	26.8S	124.9E	81	19	00m33s
10516	05	2421	Nov 25	11:51:41	1136	5218	A	-0.1652	0.9893	30.4S	2.4E	80	38	01m06s
10559	06	2439	Dec 06	20:11:47	1207	5441	A	-0.1794	0.9844	33.0S	120.5W	79	56	01m36s
10602	07	2457	Dec 17	04:35:27	1279	5664	A	-0.1900	0.9799	34.4S	116.2E	79	73	02m04s
10645	08	2475	Dec 28	13:01:54	1354	5887	A	-0.1977	0.9760	34.7S	7.6W	78	87	02m27s
10687	09	2494	Jan 07	21:30:21	1430	6110	A	-0.2034	0.9727	33.7S	132.0W	78	100	02m46s
10729	10	2512	Jan 20	05:57:20	1509	6333	A	-0.2096	0.9700	31.9S	103.6E	78	110	03m02s
10769	11	2530	Jan 30	14:23:10	1589	6556	A	-0.2163	0.9678	29.3S	21.0W	77	119	03m14s
10809	12	2548	Feb 10	22:44:25	1672	6779	A	-0.2262	0.9662	26.3S	144.9W	77	125	03m23s
10849	13	2566	Feb 21	07:01:44	1757	7002	A	-0.2388	0.9650	22.9S	91.8E	76	130	03m30s
10889	14	2584	Mar 03	15:10:31	1844	7225	A	-0.2580	0.9643	19.6S	29.8W	75	133	03m36s
10930	15	2602	Mar 15	23:13:25	1932	7448	A	-0.2814	0.9638	16.4S	150.0W	74	136	03m41s
10971	16	2620	Mar 26	07:06:11	2023	7671	A	-0.3125	0.9636	13.7S	92.2E	72	138	03m46s
11012	17	2638	Apr 06	14:50:17	2117	7894	A	-0.3500	0.9635	11.6S	23.4W	69	140	03m52s
11052	18	2656	Apr 16	22:23:12	2212	8117	A	-0.3957	0.9633	10.5S	136.2W	67	143	04m00s
11093	19	2674	Apr 28	05:47:47	2309	8340	A	-0.4477	0.9631	10.2S	113.0E	63	147	04m09s
11135	20	2692	May 08	13:02:03	2408	8563	A	-0.5074	0.9627	11.2S	4.8E	59	155	04m21s
11177	21	2710	May 20	20:07:03	2510	8786	A	-0.5738	0.9620	13.6S	101.3W	55	166	04m34s
11219	22	2728	May 31	03:03:54	2613	9009	A	-0.6458	0.9608	17.4S	154.2E	50	185	04m48s
11262	23	2746	Jun 11	09:53:44	2718	9232	A	-0.7226	0.9591	22.8S	50.8E	44	214	04m59s
11307	24	2764	Jun 21	16:37:03	2826	9455	A	-0.8039	0.9568	30.2S	51.7W	36	265	05m06s
11351	25	2782	Jul 02	23:15:18	2936	9678	A	-0.8886	0.9534	40.2S	154.2W	27	373	05m06s
11396	26	2800	Jul 13	05:50:34	3047	9901	A	-0.9747	0.9483	56.1S	101.0E	12	893	04m52s
11441	27	2818	Jul 24	12:24:20	3161	10124	P	-1.0608	0.8615	69.2S	11.7W	0		
11486	28	2836	Aug 03	18:56:34	3277	10347	P	-1.1473	0.7116	70.1S	121.4W	0		
11532	29	2854	Aug 15	01:31:02	3395	10570	P	-1.2310	0.5673	70.9S	127.9E	0		

11578 30 2872 Aug 25 08:07:26 3515 10793 P -1.3122 0.4279 71.5S 16.1E 0

11625 31 2890 Sep 05 14:49:00 3637 11016 P -1.3883 0.2981 72.0S 97.5W 0

11672 32 2908 Sep 16 21:33:42 3761 11239 P -1.4611 0.1750 72.2S 147.8E 0

11717 33 2926 Sep 28 04:26:34 3887 11462 Pe -1.5263 0.0655 72.2S 31.0E 0

SAROS SERIES

150

Saros series 150 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
08862	-35	1729 Aug 24 13:48:31	11	-3344	Pb	-1.5430	0.0067	61.7S	95.2W	0			
08908	-34	1747 Sep 04 21:07:57	12	-3121	P	-1.4880	0.1086	61.4S	146.1E	0			
08953	-33	1765 Sep 15 04:32:34	15	-2898	P	-1.4378	0.2009	61.1S	26.2E	0			
08999	-32	1783 Sep 26 12:04:17	17	-2675	P	-1.3935	0.2814	61.1S	95.4W	0			
09044	-31	1801 Oct 07 19:42:34	13	-2452	P	-1.3552	0.3505	61.2S	141.3E	0			
09089	-30	1819 Oct 19 03:27:17	12	-2229	P	-1.3226	0.4085	61.5S	16.4E	0			

09133	-29	1837	Oct 29	11:19:24	5	-2006	P	-1.2967	0.4542	61.9S	110.5W	0
09176	-28	1855	Nov 09	19:17:51	7	-1783	P	-1.2767	0.4892	62.5S	121.0E	0
09219	-27	1873	Nov 20	03:22:52	-2	-1560	P	-1.2625	0.5138	63.2S	9.5W	0
09261	-26	1891	Dec 01	11:31:08	-6	-1337	P	-1.2515	0.5326	64.1S	140.9W	0
09303	-25	1909	Dec 12	19:44:48	10	-1114	P	-1.2456	0.5424	65.0S	86.0E	0
09345	-24	1927	Dec 24	03:59:41	24	-891	P	-1.2416	0.5490	66.1S	47.7W	0
09388	-23	1946	Jan 03	12:16:11	27	-668	P	-1.2392	0.5529	67.1S	177.6E	0
09428	-22	1964	Jan 14	20:30:08	35	-445	P	-1.2354	0.5591	68.2S	43.1E	0
09468	-21	1982	Jan 25	04:42:53	52	-222	P	-1.2311	0.5663	69.3S	91.7W	0
09507	-20	2000	Feb 05	12:50:27	64	1	P	-1.2233	0.5795	70.2S	134.1E	0
09547	-19	2018	Feb 15	20:52:33	71	224	P	-1.2116	0.5991	71.0S	0.6E	0
09587	-18	2036	Feb 27	04:46:49	82	447	P	-1.1942	0.6286	71.6S	131.4W	0
09627	-17	2054	Mar 09	12:33:40	101	670	P	-1.1711	0.6678	72.0S	97.9E	0
09669	-16	2072	Mar 19	20:10:31	140	893	P	-1.1405	0.7199	72.2S	30.4W	0
09710	-15	2090	Mar 31	03:38:08	180	1116	P	-1.1028	0.7843	72.1S	156.3W	0
09751	-14	2108	Apr 11	10:55:37	222	1339	P	-1.0573	0.8620	71.7S	80.5E	0
09792	-13	2126	Apr 22	18:04:22	267	1562	A-	-1.0051	0.9514	71.1S	40.0W	0
09833	-12	2144	May 03	01:02:06	313	1785	A	-0.9441	0.9363	53.6S	175.9W	19 727 06m09s
09875	-11	2162	May 14	07:52:46	355	2008	A	-0.8775	0.9396	42.3S	72.8E	28 468 06m37s
09918	-10	2180	May 24	14:34:28	395	2231	A	-0.8035	0.9422	32.6S	32.9W	36 359 06m59s
09962	-09	2198	Jun 04	21:11:35	437	2454	A	-0.7260	0.9442	24.2S	135.7W	43 299 07m13s
10006	-08	2216	Jun 16	03:41:04	482	2677	A	-0.6420	0.9458	16.7S	124.6E	50 260 07m20s
10050	-07	2234	Jun 27	10:09:34	529	2900	A	-0.5572	0.9468	10.3S	26.1E	56 235 07m18s
10095	-06	2252	Jul 07	16:34:12	577	3123	A	-0.4686	0.9473	4.9S	70.6W	62 218 07m10s
10140	-05	2270	Jul 18	22:59:54	628	3346	A	-0.3811	0.9474	0.7S	166.9W	68 208 06m57s
10186	-04	2288	Jul 29	05:25:23	681	3569	A	-0.2930	0.9469	2.5N	97.4E	73 203 06m46s
10231	-03	2306	Aug 10	11:55:10	736	3792	A	-0.2083	0.9461	4.6N	1.0E	78 202 06m37s
10276	-02	2324	Aug 20	18:28:22	793	4015	A	-0.1261	0.9449	5.7N	96.0W	83 205 06m33s

10321	-01	2342	Sep 01	01:06:55	852	4238	A	-0.0480	0.9434	6.1N 165.7E	87	209	06m34s
10367	00	2360	Sep 11	07:52:25	913	4461	Am	0.0244	0.9415	5.7N 65.6E	89	217	06m41s
10411	01	2378	Sep 22	14:45:48	977	4684	A	0.0904	0.9396	4.8N 36.6W	85	225	06m54s
10455	02	2396	Oct 02	21:48:07	1042	4907	A	0.1493	0.9375	3.5N 141.2W	81	234	07m12s
10498	03	2414	Oct 14	04:58:50	1109	5130	A	0.2015	0.9355	2.2N 111.8E	78	245	07m34s
10541	04	2432	Oct 24	12:19:58	1179	5353	A	0.2455	0.9335	0.8N 2.1E	76	255	08m01s
10584	05	2450	Nov 04	19:49:31	1250	5576	A	0.2828	0.9318	0.5S 109.9W	74	264	08m30s
10627	06	2468	Nov 15	03:28:23	1324	5799	A	0.3126	0.9304	1.5S 135.7E	72	273	08m59s
10670	07	2486	Nov 26	11:15:08	1400	6022	A	0.3363	0.9294	2.1S 19.2E	70	280	09m26s
10712	08	2504	Dec 07	19:10:09	1477	6245	A	0.3535	0.9289	2.3S 99.5W	69	284	09m46s
10753	09	2522	Dec 19	03:10:40	1557	6468	A	0.3668	0.9289	2.0S 140.4E	68	286	09m58s
10794	10	2540	Dec 29	11:15:59	1639	6691	A	0.3765	0.9295	1.0S 19.0E	68	285	09m57s
10834	11	2559	Jan 09	19:24:29	1723	6914	A	0.3841	0.9308	0.6N 103.4W	67	280	09m43s
10874	12	2577	Jan 20	03:35:00	1809	7137	A	0.3901	0.9326	2.8N 133.7E	67	273	09m18s
10914	13	2595	Jan 31	11:44:03	1897	7360	A	0.3981	0.9352	5.9N 10.9E	67	263	08m42s
10955	14	2613	Feb 11	19:51:44	1987	7583	A	0.4076	0.9382	9.6N 111.8W	66	250	08m00s
10996	15	2631	Feb 23	03:55:11	2080	7806	A	0.4211	0.9419	14.0N 126.3E	65	236	07m13s
11036	16	2649	Mar 05	11:55:21	2174	8029	A	0.4378	0.9460	19.0N 5.2E	64	220	06m25s
11077	17	2667	Mar 16	19:47:40	2270	8252	A	0.4613	0.9506	24.6N 114.3W	62	203	05m36s
11118	18	2685	Mar 27	03:35:09	2369	8475	A	0.4895	0.9554	30.7N 127.5E	61	185	04m48s
11160	19	2703	Apr 08	11:13:59	2469	8698	A	0.5256	0.9605	37.2N 11.4E	58	167	04m01s
11202	20	2721	Apr 18	18:47:26	2572	8921	A	0.5665	0.9657	44.1N 103.1W	55	150	03m17s
11245	21	2739	Apr 30	02:11:56	2677	9144	A	0.6157	0.9708	51.4N 145.0E	52	133	02m37s
11288	22	2757	May 10	09:32:11	2783	9367	A	0.6690	0.9758	58.9N 35.1E	48	116	02m01s
11333	23	2775	May 21	16:45:20	2892	9590	A	0.7292	0.9804	66.7N 71.6W	43	102	01m31s
11378	24	2793	May 31	23:54:30	3003	9813	A	0.7933	0.9846	74.7N 173.3W	37	90	01m06s
11423	25	2811	Jun 12	06:58:46	3116	10036	A	0.8623	0.9880	82.8N 102.4E	30	84	00m47s
11468	26	2829	Jun 22	14:01:25	3231	10259	A	0.9335	0.9904	83.4N 97.9E	21	97	00m35s

11514	27	2847	Jul 03	21:02:28	3348	10482	P	1.0066	0.9775	64.9N	33.4E	0
11560	28	2865	Jul 14	04:03:03	3467	10705	P	1.0808	0.8446	64.0N	80.8W	0
11606	29	2883	Jul 25	11:05:22	3589	10928	P	1.1544	0.7116	63.3N	164.7E	0
11653	30	2901	Aug 05	18:10:19	3712	11151	P	1.2266	0.5801	62.6N	49.9E	0
11699	31	2919	Aug 17	01:18:50	3837	11374	P	1.2963	0.4526	62.1N	65.7W	0
11744	32	2937	Aug 27	08:32:10	3965	11597	P	1.3627	0.3306	61.7N	177.6E	0
11788	33	2955	Sep 07	15:51:40	4094	11820	P	1.4246	0.2164	61.4N	59.5E	0
11832	34	2973	Sep 17	23:18:46	4226	12043	P	1.4812	0.1119	61.3N	60.5W	0
11876	35	2991	Sep 29	06:52:19	4360	12266	Pe	1.5333	0.0156	61.4N	178.0E	0

SAROS SERIES

151

Saros series 151 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

08981	-34	1776	Aug 14	05:22:56	17	-2763	Pb	1.5357	0.0435	70.6N	123.5W	0
-------	-----	------	--------	----------	----	-------	----	--------	--------	-------	--------	---

09027	-33	1794	Aug 25	12:08:56	15	-2540	P	1.4616	0.1709	71.3N	121.9E	0
09072	-32	1812	Sep 05	19:04:10	12	-2317	P	1.3939	0.2874	71.8N	4.5E	0
09117	-31	1830	Sep 17	02:08:12	7	-2094	P	1.3325	0.3930	72.1N	115.6W	0
09161	-30	1848	Sep 27	09:21:19	7	-1871	P	1.2774	0.4875	72.2N	121.9E	0
09203	-29	1866	Oct 08	16:44:22	4	-1648	P	1.2296	0.5693	71.9N	3.0W	0
09245	-28	1884	Oct 19	00:17:42	-6	-1425	P	1.1892	0.6385	71.5N	130.2W	0
09287	-27	1902	Oct 31	08:00:18	1	-1202	P	1.1556	0.6960	70.8N	100.8E	0
09329	-26	1920	Nov 10	15:52:15	22	-979	P	1.1287	0.7420	69.9N	29.8W	0
09372	-25	1938	Nov 21	23:52:25	24	-756	P	1.1077	0.7781	68.9N	162.0W	0
09413	-24	1956	Dec 02	08:00:35	32	-533	P	1.0923	0.8047	67.9N	64.6E	0
09453	-23	1974	Dec 13	16:13:13	45	-310	P	1.0797	0.8266	66.8N	69.4W	0
09492	-22	1992	Dec 24	00:31:41	59	-87	P	1.0711	0.8422	65.7N	155.7E	0
09531	-21	2011	Jan 04	08:51:42	67	136	P	1.0627	0.8576	64.7N	20.8E	0
09571	-20	2029	Jan 14	17:13:48	77	359	P	1.0553	0.8714	63.7N	114.2W	0
09611	-19	2047	Jan 26	01:33:18	90	582	P	1.0450	0.8907	62.9N	111.7E	0
09652	-18	2065	Feb 05	09:52:26	124	805	P	1.0336	0.9123	62.2N	21.9W	0
09693	-17	2083	Feb 16	18:06:36	164	1028	P	1.0170	0.9433	61.6N	154.1W	0
09735	-16	2101	Feb 28	02:16:26	205	1251	An	0.9964	0.9609	60.5N	80.0E	3 - 02m44s
09776	-15	2119	Mar 11	10:19:19	249	1474	A	0.9693	0.9694	56.7N	29.2W	14 451 02m13s
09817	-14	2137	Mar 21	18:16:38	294	1697	A	0.9369	0.9769	55.6N	144.8W	20 233 01m40s
09859	-13	2155	Apr 02	02:06:34	339	1920	A	0.8975	0.9844	55.6N	101.3E	26 123 01m07s
09901	-12	2173	Apr 12	09:49:40	379	2143	A	0.8515	0.9919	56.2N	10.3W	31 53 00m35s
09945	-11	2191	Apr 23	17:26:06	420	2366	A	0.7991	0.9993	57.0N	119.2W	37 4 00m03s
09990	-10	2209	May 05	00:56:53	464	2589	H	0.7413	1.0065	57.7N	134.4E	42 34 00m28s
10033	-09	2227	May 16	08:21:31	510	2812	T	0.6774	1.0135	57.7N	30.8E	47 63 00m59s
10077	-08	2245	May 26	15:42:04	558	3035	T	0.6089	1.0201	56.7N	71.4W	52 86 01m30s
10122	-07	2263	Jun 06	22:58:57	608	3258	T	0.5366	1.0261	54.4N	173.1W	57 105 02m01s

10167	-06	2281	Jun 17	06:14:41	660	3481	T	0.4621	1.0316	50.8N	84.2E	62	121	02m32s
10213	-05	2299	Jun 28	13:27:43	714	3704	T	0.3846	1.0365	46.0N	19.5W	67	133	03m03s
10258	-04	2317	Jul 09	20:42:40	770	3927	T	0.3078	1.0406	40.4N	125.3W	72	143	03m32s
10304	-03	2335	Jul 21	03:57:49	829	4150	T	0.2306	1.0440	34.0N	127.4E	76	151	03m58s
10350	-02	2353	Jul 31	11:17:06	889	4373	T	0.1559	1.0467	27.2N	17.8E	81	158	04m20s
10395	-01	2371	Aug 11	18:38:04	951	4596	T	0.0821	1.0487	19.9N	93.0W	85	162	04m36s
10438	00	2389	Aug 22	02:05:53	1016	4819	T	0.0133	1.0500	12.5N	153.9E	89	166	04m45s
10482	01	2407	Sep 02	09:38:25	1082	5042	T	-0.0517	1.0506	5.1N	39.2E	87	168	04m48s
10525	02	2425	Sep 12	17:18:07	1151	5265	Tm	-0.1113	1.0507	2.3S	77.5W	84	169	04m47s
10568	03	2443	Sep 24	01:04:47	1222	5488	T	-0.1656	1.0502	9.6S	164.1E	80	169	04m39s
10611	04	2461	Oct 04	09:00:22	1295	5711	T	-0.2131	1.0495	16.5S	43.7E	78	168	04m30s
10653	05	2479	Oct 15	17:04:11	1369	5934	T	-0.2538	1.0484	23.0S	78.3W	75	166	04m18s
10695	06	2497	Oct 26	01:15:23	1446	6157	T	-0.2889	1.0472	29.1S	158.5E	73	164	04m06s
10737	07	2515	Nov 07	09:35:34	1525	6380	T	-0.3169	1.0459	34.4S	33.9E	71	161	03m53s
10778	08	2533	Nov 17	18:03:10	1606	6603	T	-0.3394	1.0448	38.9S	91.5W	70	159	03m43s
10818	09	2551	Nov 29	02:38:19	1690	6826	T	-0.3559	1.0438	42.3S	142.3E	69	157	03m34s
10858	10	2569	Dec 09	11:18:32	1775	7049	T	-0.3687	1.0431	44.7S	15.8E	68	155	03m27s
10898	11	2587	Dec 20	20:04:49	1862	7272	T	-0.3767	1.0428	45.6S	111.5W	68	154	03m22s
10939	12	2606	Jan 01	04:53:56	1951	7495	T	-0.3828	1.0428	45.3S	120.5E	67	155	03m20s
10980	13	2624	Jan 12	13:45:09	2043	7718	T	-0.3874	1.0433	43.8S	8.4W	67	157	03m21s
11020	14	2642	Jan 22	22:36:33	2136	7941	T	-0.3923	1.0443	41.4S	138.1W	67	160	03m24s
11060	15	2660	Feb 03	07:27:31	2232	8164	T	-0.3977	1.0457	38.2S	91.5E	66	165	03m30s
11101	16	2678	Feb 13	16:14:59	2330	8387	T	-0.4062	1.0475	34.8S	38.7W	66	172	03m38s
11143	17	2696	Feb 25	00:58:48	2429	8610	T	-0.4179	1.0496	31.1S	168.7W	65	180	03m48s
11185	18	2714	Mar 08	09:37:13	2531	8833	T	-0.4342	1.0520	27.6S	62.3E	64	189	04m01s
11228	19	2732	Mar 18	18:10:35	2635	9056	T	-0.4552	1.0544	24.4S	65.8W	63	200	04m15s
11271	20	2750	Mar 30	02:35:25	2741	9279	T	-0.4832	1.0570	21.8S	168.1E	61	212	04m31s
11316	21	2768	Apr 09	10:54:27	2849	9502	T	-0.5162	1.0595	19.9S	43.4E	59	225	04m48s

11361 22 2786 Apr 20 19:04:46 2959 9725 T -0.5565 1.0617 18.9S 79.1W 56 240 05m05s
 11406 23 2804 May 01 03:09:24 3071 9948 T -0.6018 1.0636 19.0S 159.6E 53 257 05m21s
 11451 24 2822 May 12 11:04:34 3185 10171 T -0.6549 1.0650 20.4S 40.6E 49 278 05m34s
 11496 25 2840 May 22 18:55:22 3302 10394 T -0.7118 1.0657 23.1S 77.7W 44 303 05m41s
 11542 26 2858 Jun 03 02:37:58 3420 10617 T -0.7750 1.0656 27.6S 165.7E 39 338 05m38s
 11588 27 2876 Jun 13 10:16:45 3541 10840 T -0.8414 1.0645 33.8S 49.4E 32 391 05m25s
 11635 28 2894 Jun 24 17:49:14 3663 11063 T -0.9127 1.0620 42.9S 66.3W 24 502 04m55s
 11681 29 2912 Jul 06 01:20:07 3788 11286 Ts -0.9849 1.0568 58.5S 176.0E 9 - 03m59s
 11726 30 2930 Jul 17 08:47:32 3914 11509 P -1.0593 0.9063 68.5S 53.0E 0
 11770 31 2948 Jul 27 16:14:08 4043 11732 P -1.1339 0.7620 69.5S 69.8W 0
 11814 32 2966 Aug 07 23:40:32 4174 11955 P -1.2079 0.6193 70.3S 166.9E 0
 11858 33 2984 Aug 18 07:08:25 4307 12178 P -1.2800 0.4810 71.1S 42.6E 0
 ----- 34 3002 Aug 30 14:38:31 4442 12401 P -1.3497 0.3480 71.6S 82.8W 0
 ----- 35 3020 Sep 09 22:11:39 4579 12624 P -1.4162 0.2224 72.0S 150.7E 0
 ----- 36 3038 Sep 21 05:49:43 4718 12847 P -1.4781 0.1069 72.2S 22.7E 0
 ----- 37 3056 Oct 01 13:33:09 4859 13070 Pe -1.5349 0.0021 72.1S 106.6W 0

SAROS SERIES

152

Saros series 152 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										

09054	-36	1805 Jul 26	06:14:19	12	-2405	Pb	-1.4571	0.1405	63.2S	42.8E	0		
09099	-35	1823 Aug 06	13:45:42	10	-2182	P	-1.3871	0.2753	62.5S	79.3W	0		
09143	-34	1841 Aug 16	21:20:24	5	-1959	P	-1.3193	0.4059	61.9S	158.0E	0		
09186	-33	1859 Aug 28	05:02:00	7	-1736	P	-1.2569	0.5261	61.5S	33.7E	0		
09228	-32	1877 Sep 07	12:48:42	-4	-1513	P	-1.1985	0.6382	61.2S	91.8W	0		
09270	-31	1895 Sep 18	20:44:01	-6	-1290	P	-1.1469	0.7369	61.0S	140.7E	0		
09312	-30	1913 Sep 30	04:45:49	15	-1067	P	-1.1005	0.8252	61.0S	11.6E	0		
09355	-29	1931 Oct 11	12:55:40	24	-844	P	-1.0607	0.9005	61.2S	119.5W	0		
09397	-28	1949 Oct 21	21:13:01	29	-621	P	-1.0270	0.9638	61.5S	107.5E	0		
09437	-27	1967 Nov 02	05:38:56	38	-398	T-	-1.0007	1.0126	62.0S	27.8W	0		
09477	-26	1985 Nov 12	14:11:27	55	-175	T	-0.9795	1.0388	68.6S	142.6W	11	690	01m59s
09516	-25	2003 Nov 23	22:50:22	64	48	T	-0.9638	1.0379	72.7S	88.4E	15	495	01m57s
09556	-24	2021 Dec 04	07:34:38	73	271	T	-0.9526	1.0367	76.8S	46.2W	17	419	01m54s
09596	-23	2039 Dec 15	16:23:46	85	494	T	-0.9458	1.0356	80.9S	172.8E	18	380	01m51s
09636	-22	2057 Dec 26	01:14:35	109	717	T	-0.9405	1.0348	84.9S	21.8E	19	355	01m50s
09677	-21	2076 Jan 06	10:07:27	148	940	T	-0.9373	1.0342	87.2S	173.7W	20	340	01m49s
09718	-20	2094 Jan 16	18:59:03	189	1163	T	-0.9333	1.0342	84.8S	10.6W	21	329	01m51s
09759	-19	2112 Jan 29	03:49:52	231	1386	T	-0.9292	1.0346	80.6S	163.8W	21	322	01m56s
09800	-18	2130 Feb 08	12:35:23	276	1609	T	-0.9212	1.0356	75.9S	51.8E	22	313	02m03s
09842	-17	2148 Feb 19	21:18:00	323	1832	T	-0.9111	1.0370	70.9S	88.3W	24	305	02m13s
09884	-16	2166 Mar 02	05:53:21	363	2055	T	-0.8958	1.0388	65.4S	134.4E	26	294	02m26s
09928	-15	2184 Mar 12	14:22:32	404	2278	T	-0.8755	1.0409	59.4S	0.2W	29	283	02m43s

09972	-14	2202	Mar 24	22:42:58	447	2501	T	-0.8484	1.0431	52.9S	131.9W	32	271	03m03s
10016	-13	2220	Apr 04	06:56:42	492	2724	T	-0.8162	1.0454	46.2S	99.0E	35	260	03m25s
10060	-12	2238	Apr 15	15:01:45	539	2947	T	-0.7772	1.0475	39.3S	27.3W	39	250	03m49s
10104	-11	2256	Apr 25	22:58:35	588	3170	T	-0.7317	1.0495	32.3S	150.9W	43	240	04m14s
10149	-10	2274	May 07	06:47:37	639	3393	T	-0.6799	1.0510	25.5S	88.2E	47	230	04m37s
10195	-09	2292	May 17	14:29:33	693	3616	T	-0.6224	1.0521	18.8S	30.3W	51	220	04m56s
10240	-08	2310	May 29	22:04:50	748	3839	T	-0.5599	1.0526	12.5S	146.5W	56	210	05m10s
10285	-07	2328	Jun 09	05:33:53	805	4062	T	-0.4928	1.0524	6.7S	99.5E	60	199	05m15s
10331	-06	2346	Jun 20	12:58:44	865	4285	T	-0.4224	1.0515	1.5S	12.7W	65	188	05m12s
10377	-05	2364	Jun 30	20:19:47	927	4508	T	-0.3494	1.0499	2.9N	123.3W	70	176	05m00s
10421	-04	2382	Jul 12	03:37:51	990	4731	T	-0.2744	1.0475	6.5N	127.5E	74	164	04m41s
10465	-03	2400	Jul 22	10:54:48	1056	4954	T	-0.1992	1.0444	9.1N	19.0E	79	151	04m17s
10508	-02	2418	Aug 02	18:11:10	1124	5177	T	-0.1242	1.0406	10.9N	89.0W	83	137	03m50s
10551	-01	2436	Aug 13	01:29:32	1194	5400	Tm	-0.0517	1.0361	11.8N	162.8E	87	122	03m21s
10594	00	2454	Aug 24	08:48:47	1266	5623	T	0.0194	1.0310	11.9N	54.3E	89	105	02m50s
10636	01	2472	Sep 03	16:12:54	1340	5846	T	0.0857	1.0255	11.3N	55.4W	85	87	02m19s
10678	02	2490	Sep 14	23:40:38	1416	6069	T	0.1483	1.0195	10.3N	166.2W	81	67	01m47s
10720	03	2508	Sep 26	07:14:51	1494	6292	H	0.2046	1.0134	9.0N	81.2E	78	47	01m14s
10761	04	2526	Oct 07	14:54:21	1574	6515	H	0.2557	1.0070	7.5N	33.0W	75	25	00m40s
10802	05	2544	Oct 17	22:41:14	1657	6738	H	0.3001	1.0006	5.9N	149.2W	73	2	00m04s
10842	06	2562	Oct 29	06:34:40	1741	6961	A	0.3382	0.9943	4.6N	92.7E	70	21	00m35s
10882	07	2580	Nov 08	14:34:19	1827	7184	A	0.3704	0.9883	3.4N	27.1W	68	44	01m15s
10923	08	2598	Nov 19	22:41:03	1916	7407	A	0.3959	0.9825	2.6N	148.8W	67	67	01m57s
10964	09	2616	Dec 01	06:53:19	2007	7630	A	0.4156	0.9772	2.1N	88.0E	65	89	02m39s
11005	10	2634	Dec 12	15:11:13	2099	7853	A	0.4303	0.9723	2.2N	36.7W	64	110	03m19s
11044	11	2652	Dec 22	23:31:17	2194	8076	A	0.4424	0.9680	2.8N	162.0W	64	128	03m56s
11085	12	2671	Jan 03	07:55:01	2291	8299	A	0.4505	0.9643	4.0N	71.7E	63	144	04m27s
11126	13	2689	Jan 13	16:18:41	2390	8522	A	0.4578	0.9612	5.9N	54.7W	63	158	04m52s

11168	14	2707	Jan 26	00:42:05	2491	8745	A	0.4646	0.9587	8.5N 178.7E	62	169	05m08s
11210	15	2725	Feb 05	09:02:01	2594	8968	A	0.4734	0.9567	11.8N 52.9E	62	178	05m17s
11253	16	2743	Feb 16	17:18:53	2699	9191	A	0.4842	0.9553	15.8N 72.4W	61	185	05m20s
11298	17	2761	Feb 27	01:29:39	2806	9414	A	0.4993	0.9543	20.4N 163.7E	60	191	05m17s
11343	18	2779	Mar 10	09:33:37	2915	9637	A	0.5193	0.9537	25.7N 41.3E	59	196	05m10s
11388	19	2797	Mar 20	17:29:20	3027	9860	A	0.5454	0.9533	31.6N 79.2W	57	202	05m00s
11433	20	2815	Apr 01	01:17:07	3140	10083	A	0.5774	0.9532	38.0N 162.2E	55	208	04m48s
11478	21	2833	Apr 11	08:54:12	3256	10306	A	0.6177	0.9531	45.0N 46.3E	52	217	04m34s
11524	22	2851	Apr 22	16:22:32	3373	10529	A	0.6644	0.9529	52.4N 67.3W	48	230	04m20s
11570	23	2869	May 02	23:40:23	3493	10752	A	0.7192	0.9525	60.4N 178.2W	44	250	04m05s
11617	24	2887	May 14	06:50:27	3614	10975	A	0.7793	0.9518	69.0N 73.3E	38	283	03m52s
11664	25	2905	May 25	13:49:06	3738	11198	A	0.8482	0.9505	78.6N 32.5W	32	346	03m39s
11709	26	2923	Jun 05	20:41:46	3864	11421	A	0.9210	0.9483	89.5N 149.9E	22	498	03m28s
11754	27	2941	Jun 16	03:25:38	3992	11644	A+	1.0004	0.9657	66.4N 43.9W			0
11798	28	2959	Jun 27	10:05:42	4122	11867	P	1.0817	0.8254	65.4N 153.5W			0
11842	29	2977	Jul 07	16:38:50	4254	12090	P	1.1677	0.6768	64.5N 99.0E			0
11886	30	2995	Jul 18	23:11:40	4388	12313	P	1.2531	0.5297	63.7N 8.1W			0
-----	31	3013	Jul 30	05:41:19	4524	12536	P	1.3404	0.3798	62.9N 114.2W			0
-----	32	3031	Aug 10	12:12:15	4663	12759	P	1.4257	0.2339	62.3N 139.7E			0
-----	33	3049	Aug 20	18:43:31	4803	12982	Pe	1.5098	0.0906	61.8N 33.6E			0

SAROS SERIES

153

Saros series 153 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													
09212	-34	1870 Jul 28	11:02:31	0	-1601	Pb	1.5044	0.0742	69.2N	170.9E	0		
09254	-33	1888 Aug 07	18:05:46	-6	-1378	P	1.4369	0.1983	70.1N	53.0E	0		
09296	-32	1906 Aug 20	01:12:50	6	-1155	P	1.3731	0.3147	70.8N	66.4W	0		
09338	-31	1924 Aug 30	08:23:00	24	-932	P	1.3123	0.4245	71.5N	172.9E	0		
09381	-30	1942 Sep 10	15:39:32	26	-709	P	1.2571	0.5230	71.9N	50.0E	0		
09421	-29	1960 Sep 20	22:59:56	33	-486	P	1.2057	0.6139	72.1N	74.1W	0		
09461	-28	1978 Oct 02	06:28:43	49	-263	P	1.1616	0.6905	72.0N	159.6E	0		
09500	-27	1996 Oct 12	14:03:04	62	-40	P	1.1227	0.7575	71.7N	32.1E	0		
09540	-26	2014 Oct 23	21:45:39	69	183	P	1.0908	0.8114	71.2N	97.2W	0		
09580	-25	2032 Nov 03	05:34:13	79	406	P	1.0643	0.8554	70.4N	132.6E	0		
09620	-24	2050 Nov 14	13:30:53	95	629	P	1.0447	0.8874	69.5N	1.0E	0		
09661	-23	2068 Nov 24	21:32:30	132	852	P	1.0299	0.9109	68.5N	131.1W	0		
09702	-22	2086 Dec 06	05:38:55	172	1075	P	1.0194	0.9271	67.4N	96.2E	0		
09743	-21	2104 Dec 17	13:48:27	214	1298	A+	1.0120	0.9381	66.4N	36.6W	0		
09784	-20	2122 Dec 28	22:00:56	258	1521	A+	1.0072	0.9450	65.3N	169.8W	0		
09825	-19	2141 Jan 08	06:12:38	304	1744	A+	1.0024	0.9522	64.3N	57.7E	0		
09867	-18	2159 Jan 19	14:23:26	347	1967	A+	0.9974	0.9600	63.4N	74.2W	0		

09910	-17	2177	Jan 29	22:30:30	387	2190	An	0.9897	0.9212	57.6N	165.1E	7	-	06m55s
09954	-16	2195	Feb 10	06:34:27	430	2413	An	0.9797	0.9218	55.2N	41.6E	11	-	06m52s
09999	-15	2213	Feb 21	14:30:14	474	2636	A	0.9635	0.9230	53.4N	78.6W	15	1080	06m44s
10043	-14	2231	Mar 04	22:20:24	520	2859	A	0.9430	0.9246	52.4N	163.0E	19	838	06m32s
10087	-13	2249	Mar 15	06:00:45	568	3082	A	0.9149	0.9266	52.0N	48.4E	23	666	06m18s
10132	-12	2267	Mar 26	13:33:45	619	3305	A	0.8810	0.9289	52.3N	63.7W	28	549	06m03s
10177	-11	2285	Apr 05	20:55:23	671	3528	A	0.8379	0.9315	52.9N	171.4W	33	459	05m50s
10222	-10	2303	Apr 18	04:09:26	726	3751	A	0.7889	0.9341	53.8N	83.7E	38	393	05m38s
10267	-09	2321	Apr 28	11:12:59	783	3974	A	0.7315	0.9367	54.5N	17.0W	43	341	05m30s
10312	-08	2339	May 09	18:08:04	841	4197	A	0.6672	0.9392	54.7N	114.5W	48	300	05m24s
10358	-07	2357	May 20	00:54:23	902	4420	A	0.5961	0.9415	53.9N	151.0E	53	269	05m24s
10403	-06	2375	May 31	07:34:33	965	4643	A	0.5200	0.9436	52.0N	57.9E	58	243	05m26s
10447	-05	2393	Jun 10	14:08:41	1030	4866	A	0.4389	0.9453	48.8N	34.4W	64	224	05m34s
10491	-04	2411	Jun 21	20:37:43	1097	5089	A	0.3537	0.9467	44.2N	126.9W	69	210	05m46s
10534	-03	2429	Jul 02	03:04:30	1166	5312	A	0.2668	0.9476	38.6N	139.6E	74	200	06m01s
10577	-02	2447	Jul 13	09:29:35	1237	5535	A	0.1786	0.9481	32.2N	45.1E	80	194	06m18s
10620	-01	2465	Jul 23	15:54:48	1310	5758	A	0.0904	0.9482	25.0N	50.6W	85	191	06m35s
10662	00	2483	Aug 03	22:21:18	1386	5981	A	0.0030	0.9479	17.4N	147.7W	90	192	06m50s
10704	01	2501	Aug 15	04:52:08	1463	6204	Am	-0.0810	0.9471	9.5N	113.4E	85	195	07m01s
10745	02	2519	Aug 26	11:27:49	1542	6427	A	-0.1610	0.9460	1.4N	12.7E	81	201	07m08s
10786	03	2537	Sep 05	18:08:59	1624	6650	A	-0.2368	0.9446	6.7S	89.6W	76	210	07m11s
10826	04	2555	Sep 17	00:58:18	1707	6873	A	-0.3061	0.9429	14.8S	165.9E	72	221	07m10s
10866	05	2573	Sep 27	07:55:50	1793	7096	A	-0.3690	0.9411	22.7S	59.4E	68	233	07m06s
10906	06	2591	Oct 08	15:02:49	1881	7319	A	-0.4245	0.9393	30.2S	49.1W	65	247	07m00s
10948	07	2609	Oct 19	22:18:05	1971	7542	A	-0.4734	0.9375	37.4S	159.2W	62	263	06m53s
10989	08	2627	Oct 31	05:43:51	2062	7765	A	-0.5140	0.9358	44.0S	89.1E	59	278	06m44s
11029	09	2645	Nov 10	13:18:36	2156	7988	A	-0.5477	0.9344	49.9S	23.6W	57	293	06m35s
11069	10	2663	Nov 21	21:02:01	2252	8211	A	-0.5747	0.9333	54.9S	136.6W	55	305	06m26s

11110	11	2681	Dec 02	04:53:55	2350	8434	A	-0.5952	0.9326	58.6S	110.4E	53	314	06m18s
11152	12	2699	Dec 13	12:52:50	2451	8657	A	-0.6106	0.9325	60.9S	2.3W	52	320	06m08s
11194	13	2717	Dec 24	20:58:06	2553	8880	A	-0.6210	0.9329	61.5S	115.6W	51	321	06m00s
11236	14	2736	Jan 05	05:06:12	2657	9103	A	-0.6300	0.9340	60.6S	130.0E	51	318	05m50s
11279	15	2754	Jan 15	13:18:44	2764	9326	A	-0.6358	0.9356	58.3S	13.1E	50	310	05m39s
11324	16	2772	Jan 26	21:31:18	2872	9549	A	-0.6426	0.9378	55.2S	105.7W	50	300	05m26s
11370	17	2790	Feb 06	05:44:15	2982	9772	A	-0.6495	0.9407	51.5S	133.7E	49	286	05m12s
11415	18	2808	Feb 17	13:53:37	3095	9995	A	-0.6601	0.9441	47.8S	12.9E	48	271	04m56s
11460	19	2826	Feb 27	22:01:00	3210	10218	A	-0.6729	0.9480	44.2S	108.3W	47	254	04m38s
11506	20	2844	Mar 10	06:02:50	3326	10441	A	-0.6913	0.9523	41.0S	131.5E	46	236	04m18s
11552	21	2862	Mar 21	13:59:08	3445	10664	A	-0.7148	0.9570	38.5S	12.4E	44	218	03m55s
11598	22	2880	Mar 31	21:48:29	3566	10887	A	-0.7447	0.9619	36.8S	105.1W	42	201	03m32s
11645	23	2898	Apr 12	05:31:42	3689	11110	A	-0.7801	0.9669	36.2S	138.9E	38	185	03m06s
11691	24	2916	Apr 23	13:07:22	3814	11333	A	-0.8223	0.9718	37.1S	24.8E	34	173	02m39s
11736	25	2934	May 04	20:36:37	3941	11556	A	-0.8706	0.9764	39.7S	87.5W	29	168	02m12s
11780	26	2952	May 15	03:59:11	4070	11779	A	-0.9249	0.9803	44.9S	162.2E	22	182	01m46s
11824	27	2970	May 26	11:17:06	4202	12002	A	-0.9834	0.9826	55.7S	55.7E	10	362	01m26s
11868	28	2988	Jun 05	18:28:53	4335	12225	P	-1.0476	0.9018	64.8S	51.6W	0		
-----	29	3006	Jun 18	01:38:21	4470	12448	P	-1.1143	0.7829	65.8S	168.4W	0		
-----	30	3024	Jun 28	08:44:29	4608	12671	P	-1.1841	0.6570	66.8S	75.2E	0		
-----	31	3042	Jul 09	15:51:12	4747	12894	P	-1.2542	0.5293	67.8S	41.7W	0		
-----	32	3060	Jul 19	22:56:05	4889	13117	P	-1.3262	0.3971	68.8S	158.6W	0		
-----	33	3078	Jul 31	06:04:38	5033	13340	P	-1.3958	0.2684	69.7S	82.9E	0		
-----	34	3096	Aug 10	13:14:10	5178	13563	P	-1.4650	0.1399	70.5S	36.3W	0		
-----	35	3114	Aug 22	20:29:10	5326	13786	Pe	-1.5304	0.0178	71.1S	157.4W	0		

SAROS SERIES

154

Saros series 154 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
09322	-34	1917 Jul 19 02:42:42	20	-1020	Pb	-1.5101	0.0863	63.7S	101.8E	0			
09365	-33	1935 Jul 30 09:16:28	24	-797	P	-1.4259	0.2315	62.9S	5.9W	0			
09406	-32	1953 Aug 09 15:55:03	30	-574	P	-1.3440	0.3729	62.2S	114.7W	0			
09446	-31	1971 Aug 20 22:39:31	42	-351	P	-1.2659	0.5080	61.7S	135.4E	0			
09485	-30	1989 Aug 31 05:31:47	57	-128	P	-1.1928	0.6344	61.3S	23.6E	0			
09524	-29	2007 Sep 11 12:32:24	66	95	P	-1.1255	0.7507	61.0S	90.2W	0			
09564	-28	2025 Sep 21 19:43:04	75	318	P	-1.0651	0.8550	60.9S	153.5E	0			
09604	-27	2043 Oct 03 03:01:49	88	541	A-	-1.0102	0.9497	61.0S	35.3E	0			
09645	-26	2061 Oct 13 10:32:10	117	764	A	-0.9639	0.9469	62.1S	54.4W	15	743	03m41s	
09686	-25	2079 Oct 24 18:11:21	156	987	A	-0.9243	0.9484	63.4S	160.6W	22	495	03m39s	
09727	-24	2097 Nov 04 02:01:25	197	1210	A	-0.8926	0.9494	65.8S	86.8E	26	411	03m36s	
09768	-23	2115 Nov 16 09:58:55	241	1433	A	-0.8664	0.9503	68.7S	27.8W	30	365	03m32s	
09808	-22	2133 Nov 26 18:05:55	286	1656	A	-0.8473	0.9513	72.0S	143.5W	32	337	03m27s	
09850	-21	2151 Dec 08 02:18:31	332	1879	A	-0.8320	0.9526	75.1S	103.1E	33	314	03m22s	

09892	-20	2169	Dec 18	10:37:07	371	2102	A	-0.8213	0.9544	77.3S	6.1W	34	295	03m15s
09936	-19	2187	Dec 29	18:59:03	413	2325	A	-0.8126	0.9565	77.7S	111.2W	35	274	03m07s
09981	-18	2206	Jan 10	03:24:08	456	2548	A	-0.8060	0.9592	75.9S	140.5E	36	252	02m57s
10025	-17	2224	Jan 21	11:48:53	502	2771	A	-0.7984	0.9626	72.4S	25.2E	37	227	02m46s
10069	-16	2242	Jan 31	20:12:58	549	2994	A	-0.7894	0.9665	67.9S	95.8W	38	197	02m31s
10114	-15	2260	Feb 12	04:34:24	599	3217	A	-0.7776	0.9711	62.7S	140.2E	39	165	02m15s
10159	-14	2278	Feb 22	12:52:48	650	3440	A	-0.7628	0.9762	57.1S	14.8E	40	131	01m54s
10205	-13	2296	Mar 04	21:04:46	704	3663	A	-0.7418	0.9819	51.1S	110.3W	42	95	01m31s
10250	-12	2314	Mar 17	05:11:54	760	3886	A	-0.7160	0.9880	44.9S	125.1E	44	60	01m03s
10295	-11	2332	Mar 27	13:11:34	818	4109	A	-0.6831	0.9944	38.3S	2.0E	47	26	00m30s
10341	-10	2350	Apr 07	21:06:03	878	4332	H	-0.6452	1.0011	31.7S	119.7W	50	5	00m06s
10386	-09	2368	Apr 18	04:51:38	940	4555	H	-0.5992	1.0079	24.8S	120.8E	53	34	00m47s
10430	-08	2386	Apr 29	12:32:25	1004	4778	H2	-0.5483	1.0146	18.1S	2.9E	57	60	01m30s
10474	-07	2404	May 09	20:05:45	1070	5001	T	-0.4902	1.0212	11.4S	112.8W	61	83	02m14s
10517	-06	2422	May 21	03:34:51	1138	5224	T	-0.4278	1.0275	5.0S	133.1E	65	103	02m56s
10560	-05	2440	May 31	10:58:15	1209	5447	T	-0.3598	1.0334	1.0N	21.0E	69	121	03m33s
10603	-04	2458	Jun 11	18:19:40	1281	5670	T	-0.2891	1.0388	6.3N	90.0W	73	136	04m04s
10646	-03	2476	Jun 22	01:38:29	1356	5893	T	-0.2153	1.0435	11.1N	160.4E	78	149	04m25s
10688	-02	2494	Jul 03	08:56:16	1432	6116	T	-0.1397	1.0477	15.0N	51.7E	82	160	04m40s
10730	-01	2512	Jul 14	16:14:11	1511	6339	T	-0.0634	1.0510	18.1N	56.5W	86	170	04m47s
10770	00	2530	Jul 25	23:33:49	1591	6562	T	0.0124	1.0538	20.2N	164.6W	89	178	04m50s
10810	01	2548	Aug 05	06:56:36	1674	6785	Tm	0.0862	1.0556	21.4N	86.6E	85	184	04m49s
10850	02	2566	Aug 16	14:22:25	1759	7008	T	0.1581	1.0569	21.8N	22.8W	81	190	04m46s
10890	03	2584	Aug 26	21:54:18	1846	7231	T	0.2258	1.0573	21.4N	134.0W	77	193	04m43s
10931	04	2602	Sep 08	05:31:32	1935	7454	T	0.2895	1.0572	20.6N	113.3E	73	196	04m39s
10972	05	2620	Sep 18	13:15:47	2026	7677	T	0.3476	1.0565	19.4N	1.6W	70	198	04m35s
11013	06	2638	Sep 29	21:06:37	2119	7900	T	0.4007	1.0554	18.1N	118.4W	66	198	04m31s
11053	07	2656	Oct 10	05:06:01	2214	8123	T	0.4468	1.0539	16.7N	122.2E	63	197	04m28s

11094	08	2674	Oct 21	13:13:05	2312	8346	T	0.4869	1.0522	15.4N	0.5E	61	196	04m25s
11136	09	2692	Oct 31	21:27:40	2411	8569	T	0.5212	1.0503	14.4N	123.3W	58	193	04m23s
11178	10	2710	Nov 13	05:50:18	2512	8792	T	0.5489	1.0486	13.6N	110.5E	57	191	04m20s
11220	11	2728	Nov 23	14:20:46	2616	9015	T	0.5701	1.0468	13.1N	17.8W	55	188	04m17s
11263	12	2746	Dec 04	22:57:39	2721	9238	T	0.5864	1.0454	13.0N	147.9W	54	186	04m15s
11308	13	2764	Dec 15	07:40:02	2829	9461	T	0.5984	1.0443	13.3N	80.4E	53	184	04m12s
11352	14	2782	Dec 26	16:26:47	2939	9684	T	0.6070	1.0435	14.1N	52.4W	53	183	04m10s
11397	15	2801	Jan 06	01:17:30	3050	9907	T	0.6127	1.0432	15.5N	173.7E	52	182	04m07s
11442	16	2819	Jan 17	10:08:37	3164	10130	T	0.6180	1.0433	17.4N	39.6E	52	184	04m04s
11487	17	2837	Jan 27	19:01:17	3280	10353	T	0.6223	1.0438	20.0N	95.0W	51	187	04m02s
11533	18	2855	Feb 08	03:51:22	3398	10576	T	0.6288	1.0448	23.2N	131.0E	51	191	04m00s
11580	19	2873	Feb 18	12:39:50	3518	10799	T	0.6369	1.0461	27.1N	2.8W	50	198	03m59s
11627	20	2891	Mar 01	21:22:05	3640	11022	T	0.6501	1.0477	31.7N	135.2W	49	207	03m58s
11674	21	2909	Mar 13	06:00:58	3765	11245	T	0.6663	1.0495	36.8N	93.1E	48	219	03m56s
11719	22	2927	Mar 24	14:32:03	3891	11468	T	0.6886	1.0514	42.6N	36.8W	46	233	03m54s
11763	23	2945	Apr 03	22:56:50	4019	11691	T	0.7164	1.0532	49.0N	165.4W	44	251	03m50s
11807	24	2963	Apr 15	07:12:58	4150	11914	T	0.7513	1.0547	55.9N	68.0E	41	273	03m44s
11851	25	2981	Apr 25	15:22:39	4282	12137	T	0.7917	1.0560	63.3N	57.6W	37	303	03m36s
11895	26	2999	May 06	23:23:57	4417	12360	T	0.8388	1.0566	71.5N	177.3E	33	345	03m25s
-----	27	3017	May 18	07:17:56	4553	12583	T	0.8919	1.0564	80.3N	46.1E	26	417	03m11s
-----	28	3035	May 29	15:04:56	4692	12806	T	0.9507	1.0548	84.8N	167.7W	17	605	02m50s
-----	29	3053	Jun 08	22:46:25	4833	13029	P	1.0142	0.9922	67.1N	36.8E	0		
-----	30	3071	Jun 20	06:21:51	4976	13252	P	1.0823	0.8613	66.1N	87.0W	0		
-----	31	3089	Jun 30	13:53:21	5121	13475	P	1.1533	0.7248	65.2N	150.7E	0		
-----	32	3107	Jul 12	21:21:18	5268	13698	P	1.2269	0.5833	64.3N	29.6E	0		
-----	33	3125	Jul 23	04:47:58	5417	13921	P	1.3012	0.4409	63.5N	90.9W	0		
-----	34	3143	Aug 03	12:11:53	5568	14144	P	1.3771	0.2960	62.8N	149.6E	0		
-----	35	3161	Aug 13	19:37:05	5721	14367	P	1.4513	0.1553	62.2N	29.9E	0		

SAROS SERIES

155

Saros series 155 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
09347	-36	1928 Jun 17	20:27:28	24	-885	Pb	1.5107	0.0375	65.6N	70.6E	0		
09390	-35	1946 Jun 29	03:51:58	28	-662	P	1.4361	0.1802	66.6N	50.8W	0		
09430	-34	1964 Jul 09	11:17:53	35	-439	P	1.3623	0.3221	67.6N	172.9W	0		
09470	-33	1982 Jul 20	18:44:44	53	-216	P	1.2886	0.4643	68.6N	64.2E	0		
09509	-32	2000 Jul 31	02:14:08	64	7	P	1.2166	0.6034	69.5N	59.9W	0		
09549	-31	2018 Aug 11	09:47:28	71	230	P	1.1476	0.7368	70.4N	174.5E	0		
09589	-30	2036 Aug 21	17:25:45	82	453	P	1.0825	0.8622	71.1N	47.0E	0		
09629	-29	2054 Sep 02	01:09:34	102	676	P	1.0215	0.9793	71.7N	82.3W	0		
09670	-28	2072 Sep 12	08:59:20	141	899	T	0.9655	1.0558	69.8N	102.0E	14	732	03m13s

09711	-27	2090	Sep 23	16:56:36	181	1122	T	0.9157	1.0562	60.7N	40.5W	23	463	03m36s
09752	-26	2108	Oct 05	01:01:20	223	1345	T	0.8722	1.0551	52.5N	172.0W	29	371	03m50s
09793	-25	2126	Oct 16	09:12:51	268	1568	T	0.8345	1.0534	45.3N	58.6E	33	319	04m00s
09834	-24	2144	Oct 26	17:32:40	314	1791	T	0.8037	1.0512	39.2N	71.2W	36	284	04m04s
09876	-23	2162	Nov 07	01:59:40	356	2014	T	0.7788	1.0489	34.1N	158.3E	39	258	04m05s
09919	-22	2180	Nov 17	10:34:02	396	2237	T	0.7605	1.0465	30.1N	26.5E	40	238	04m03s
09963	-21	2198	Nov 28	19:12:46	439	2460	T	0.7459	1.0442	26.9N	106.0W	42	221	03m58s
10007	-20	2216	Dec 10	03:57:52	483	2683	T	0.7367	1.0421	24.8N	120.2E	42	208	03m51s
10051	-19	2234	Dec 21	12:46:02	530	2906	T	0.7299	1.0403	23.5N	14.1W	43	197	03m42s
10096	-18	2252	Dec 31	21:37:06	579	3129	T	0.7258	1.0389	23.1N	149.1W	43	189	03m33s
10141	-17	2271	Jan 12	06:28:08	630	3352	T	0.7217	1.0379	23.3N	76.0E	44	182	03m25s
10187	-16	2289	Jan 22	15:19:25	683	3575	T	0.7181	1.0374	24.3N	58.9W	44	178	03m18s
10232	-15	2307	Feb 04	00:08:01	738	3798	T	0.7125	1.0373	25.7N	166.9E	44	176	03m12s
10277	-14	2325	Feb 14	08:52:36	795	4021	T	0.7038	1.0378	27.5N	33.9E	45	175	03m08s
10322	-13	2343	Feb 25	17:32:18	854	4244	T	0.6913	1.0385	29.6N	97.7W	46	175	03m06s
10368	-12	2361	Mar 08	02:05:56	915	4467	T	0.6743	1.0396	31.9N	132.7E	47	176	03m06s
10412	-11	2379	Mar 19	10:31:47	978	4690	T	0.6512	1.0409	34.3N	5.6E	49	177	03m07s
10456	-10	2397	Mar 29	18:49:52	1044	4913	T	0.6221	1.0423	36.7N	118.9W	51	178	03m11s
10499	-09	2415	Apr 10	02:59:35	1111	5136	T	0.5866	1.0436	38.9N	119.6E	54	178	03m15s
10542	-08	2433	Apr 20	11:01:32	1181	5359	T	0.5450	1.0449	40.8N	0.9E	57	177	03m21s
10585	-07	2451	May 01	18:53:37	1252	5582	T	0.4958	1.0459	42.1N	114.3W	60	175	03m28s
10628	-06	2469	May 12	02:39:07	1326	5805	T	0.4417	1.0466	42.6N	132.9E	64	172	03m36s
10671	-05	2487	May 23	10:16:15	1402	6028	T	0.3811	1.0467	42.1N	22.6E	67	168	03m43s
10713	-04	2505	Jun 03	17:48:02	1479	6251	T	0.3165	1.0464	40.5N	86.3W	71	163	03m50s
10754	-03	2523	Jun 15	01:12:30	1559	6474	T	0.2464	1.0453	37.5N	166.2E	76	156	03m56s
10795	-02	2541	Jun 25	08:33:57	1641	6697	T	0.1743	1.0437	33.5N	58.6E	80	148	03m58s
10835	-01	2559	Jul 06	15:50:37	1725	6920	Tm	0.0992	1.0412	28.4N	48.9W	84	139	03m55s
10875	00	2577	Jul 16	23:05:23	1811	7143	T	0.0230	1.0382	22.5N	156.8W	89	128	03m47s

10915	01	2595	Jul 28	06:18:18	1900	7366	T	-0.0539	1.0343	15.8N	94.8E	87	116	03m30s
10956	02	2613	Aug 08	13:32:05	1990	7589	T	-0.1292	1.0300	8.7N	14.5W	83	102	03m07s
10997	03	2631	Aug 19	20:47:03	2082	7812	T	-0.2025	1.0249	1.2N	124.7W	78	86	02m36s
11037	04	2649	Aug 30	04:03:55	2176	8035	T	-0.2732	1.0194	6.5S	124.2E	74	69	02m01s
11078	05	2667	Sep 10	11:25:05	2273	8258	H	-0.3393	1.0134	14.2S	11.7E	70	49	01m22s
11119	06	2685	Sep 20	18:50:12	2371	8481	H	-0.4011	1.0071	22.0S	101.7W	66	27	00m42s
11161	07	2703	Oct 03	02:21:25	2472	8704	H	-0.4570	1.0006	29.6S	143.4E	63	2	00m03s
11203	08	2721	Oct 13	09:57:38	2575	8927	A	-0.5077	0.9940	37.0S	27.6E	59	24	00m34s
11246	09	2739	Oct 24	17:41:47	2679	9150	A	-0.5510	0.9874	43.9S	89.4W	56	53	01m08s
11289	10	2757	Nov 04	01:31:50	2786	9373	A	-0.5886	0.9811	50.4S	153.2E	54	83	01m39s
11334	11	2775	Nov 15	09:29:02	2895	9596	A	-0.6195	0.9750	56.1S	35.8E	51	114	02m07s
11379	12	2793	Nov 25	17:32:25	3006	9819	A	-0.6447	0.9693	60.9S	80.9W	50	145	02m32s
11424	13	2811	Dec 07	01:42:19	3119	10042	A	-0.6641	0.9640	64.3S	163.6E	48	175	02m55s
11469	14	2829	Dec 17	09:56:19	3234	10265	A	-0.6793	0.9594	66.1S	49.5E	47	202	03m15s
11515	15	2847	Dec 28	18:13:42	3351	10488	A	-0.6911	0.9552	66.1S	64.7W	46	227	03m34s
11561	16	2866	Jan 08	02:33:07	3471	10711	A	-0.7007	0.9518	64.5S	179.3E	45	248	03m51s
11608	17	2884	Jan 19	10:53:53	3592	10934	A	-0.7088	0.9489	61.7S	60.4E	45	265	04m07s
11655	18	2902	Jan 30	19:12:16	3715	11157	A	-0.7182	0.9466	58.3S	60.1W	44	280	04m21s
11701	19	2920	Feb 11	03:28:36	3841	11380	A	-0.7285	0.9449	54.6S	178.1E	43	293	04m34s
11746	20	2938	Feb 21	11:39:31	3968	11603	A	-0.7427	0.9436	51.1S	56.6E	42	306	04m46s
11790	21	2956	Mar 03	19:46:05	4098	11826	A	-0.7598	0.9428	47.8S	64.6W	40	318	04m57s
11834	22	2974	Mar 15	03:43:12	4230	12049	A	-0.7841	0.9422	45.4S	176.4E	38	335	05m07s
11878	23	2992	Mar 25	11:34:16	4363	12272	A	-0.8128	0.9419	43.8S	58.8E	35	358	05m17s
----	24	3010	Apr 06	19:14:31	4499	12495	A	-0.8494	0.9415	43.5S	55.9W	32	398	05m25s
----	25	3028	Apr 17	02:47:00	4637	12718	A	-0.8919	0.9411	44.9S	168.2W	27	469	05m30s
----	26	3046	Apr 28	10:07:53	4777	12941	A	-0.9431	0.9399	49.2S	83.9E	19	660	05m31s
----	27	3064	May 08	17:21:18	4919	13164	A-	-0.9997	0.9639	62.6S	7.7W	0		
----	28	3082	May 20	00:24:26	5063	13387	P	-1.0640	0.8539	63.4S	122.0W	0		

----- 29 3100 May 31 07:19:28 5209 13610 P -1.1341 0.7339 64.3S 125.4E 0
----- 30 3118 Jun 11 14:06:32 5358 13833 P -1.2095 0.6044 65.2S 14.6E 0
----- 31 3136 Jun 21 20:47:51 5508 14056 P -1.2886 0.4685 66.2S 95.2W 0
----- 32 3154 Jul 03 03:23:41 5660 14279 P -1.3714 0.3265 67.2S 156.0E 0
----- 33 3172 Jul 13 09:55:26 5815 14502 P -1.4563 0.1808 68.2S 47.7E 0
----- 34 3190 Jul 24 16:25:00 5971 14725 Pe -1.5419 0.0342 69.2S 60.6W 0

SAROS SERIES

156

Saros series 156 contains 69 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													
09533	-34	2011 Jul 01	08:39:30	67	142	Pb	-1.4917	0.0971	65.2S	28.6E	0		
09573	-33	2029 Jul 11	15:37:19	77	365	P	-1.4191	0.2303	64.3S	85.6W	0		
09613	-32	2047 Jul 22	22:36:17	91	588	P	-1.3477	0.3604	63.4S	160.2E	0		
09654	-31	2065 Aug 02	05:34:17	125	811	P	-1.2759	0.4903	62.7S	46.5E	0		

09695	-30	2083	Aug 13	12:34:41	165	1034	P	-1.2064	0.6146	62.1S	67.5W	0
09736	-29	2101	Aug 24	19:37:03	206	1257	P	-1.1392	0.7337	61.6S	178.2E	0
09777	-28	2119	Sep 05	02:44:27	250	1480	P	-1.0766	0.8431	61.2S	62.8E	0
09818	-27	2137	Sep 15	09:56:34	296	1703	P	-1.0184	0.9436	61.0S	53.8W	0
09860	-26	2155	Sep 26	17:14:27	340	1926	A	-0.9654	0.9593	58.6S	143.0W	15 570 02m55s
09902	-25	2173	Oct 07	00:39:14	380	2149	A	-0.9187	0.9558	57.8S	114.0E	23 402 03m17s
09946	-24	2191	Oct 18	08:11:12	422	2372	A	-0.8783	0.9516	58.7S	5.2E	28 365 03m39s
09991	-23	2209	Oct 29	15:50:20	465	2595	A	-0.8445	0.9472	60.7S	106.3W	32 358 04m02s
10034	-22	2227	Nov 09	23:36:42	511	2818	A	-0.8171	0.9429	63.3S	140.7E	35 364 04m24s
10078	-21	2245	Nov 20	07:29:36	559	3041	A	-0.7955	0.9387	66.3S	27.1E	37 374 04m45s
10123	-20	2263	Dec 01	15:28:45	609	3264	A	-0.7794	0.9349	69.2S	85.8W	38 388 05m06s
10168	-19	2281	Dec 11	23:31:24	661	3487	A	-0.7667	0.9316	71.4S	163.7E	40 400 05m26s
10214	-18	2299	Dec 23	07:38:42	716	3710	A	-0.7584	0.9288	72.5S	54.8E	40 413 05m45s
10259	-17	2318	Jan 03	15:47:14	772	3933	A	-0.7519	0.9265	71.9S	53.7W	41 422 06m02s
10305	-16	2336	Jan 14	23:56:42	830	4156	A	-0.7463	0.9250	69.6S	164.9W	41 427 06m19s
10351	-15	2354	Jan 25	08:03:20	891	4379	A	-0.7388	0.9240	66.0S	80.6E	42 427 06m35s
10396	-14	2372	Feb 05	16:07:48	953	4602	A	-0.7301	0.9237	61.5S	36.9W	43 422 06m50s
10439	-13	2390	Feb 16	00:06:58	1018	4825	A	-0.7177	0.9239	56.4S	155.6W	44 411 07m06s
10483	-12	2408	Feb 27	07:59:40	1084	5048	A	-0.7004	0.9249	50.8S	85.5E	45 394 07m22s
10526	-11	2426	Mar 09	15:44:45	1153	5271	A	-0.6774	0.9262	44.7S	32.5W	47 374 07m38s
10569	-10	2444	Mar 19	23:21:38	1224	5494	A	-0.6476	0.9280	38.3S	149.1W	49 351 07m53s
10612	-09	2462	Mar 31	06:49:44	1297	5717	A	-0.6111	0.9302	31.7S	96.3E	52 327 08m07s
10654	-08	2480	Apr 10	14:07:46	1372	5940	A	-0.5664	0.9326	24.8S	16.0W	55 303 08m18s
10696	-07	2498	Apr 21	21:17:12	1448	6163	A	-0.5148	0.9351	17.9S	125.9W	59 280 08m26s
10738	-06	2516	May 03	04:17:47	1528	6386	A	-0.4559	0.9377	10.9S	126.7E	63 259 08m28s
10779	-05	2534	May 14	11:09:29	1609	6609	A	-0.3896	0.9402	4.1S	21.9E	67 240 08m23s
10819	-04	2552	May 24	17:54:09	1692	6832	A	-0.3174	0.9425	2.5N	80.5W	72 224 08m09s
10859	-03	2570	Jun 05	00:32:17	1777	7055	A	-0.2395	0.9446	8.7N	179.4E	76 211 07m48s

10899	-02	2588	Jun 15	07:06:20	1864	7278	A	-0.1582	0.9463	14.3N	81.1E	81	200	07m21s
10940	-01	2606	Jun 27	13:34:39	1954	7501	A	-0.0720	0.9477	19.3N	15.0W	86	193	06m52s
10981	00	2624	Jul 07	20:02:10	2045	7724	Am	0.0150	0.9487	23.4N	110.2W	89	188	06m24s
11021	01	2642	Jul 19	02:27:54	2139	7947	A	0.1040	0.9493	26.6N	155.8E	84	187	06m00s
11061	02	2660	Jul 29	08:55:21	2235	8170	A	0.1914	0.9495	28.9N	61.8E	79	189	05m42s
11102	03	2678	Aug 09	15:23:56	2332	8393	A	0.2782	0.9492	30.4N	32.2W	74	194	05m30s
11144	04	2696	Aug 19	21:57:56	2432	8616	A	0.3608	0.9485	31.1N	127.6W	69	201	05m24s
11186	05	2714	Sep 01	04:36:50	2534	8839	A	0.4397	0.9474	31.3N	135.5E	64	213	05m24s
11229	06	2732	Sep 11	11:21:54	2638	9062	A	0.5138	0.9461	31.1N	36.6E	59	227	05m29s
11272	07	2750	Sep 22	18:14:45	2744	9285	A	0.5817	0.9445	30.9N	64.7W	54	246	05m40s
11317	08	2768	Oct 03	01:16:28	2852	9508	A	0.6427	0.9428	30.7N	168.8W	50	269	05m54s
11362	09	2786	Oct 14	08:28:06	2962	9731	A	0.6961	0.9410	30.8N	84.0E	46	296	06m11s
11407	10	2804	Oct 24	15:48:02	3074	9954	A	0.7433	0.9392	31.2N	26.0W	42	327	06m30s
11452	11	2822	Nov 04	23:19:12	3188	10177	A	0.7817	0.9376	31.9N	139.4W	38	362	06m49s
11497	12	2840	Nov 15	06:59:00	3305	10400	A	0.8135	0.9363	32.9N	104.4E	35	399	07m05s
11543	13	2858	Nov 26	14:48:33	3423	10623	A	0.8377	0.9354	34.1N	14.9W	33	435	07m17s
11589	14	2876	Dec 06	22:44:54	3544	10846	A	0.8570	0.9349	35.5N	136.5W	31	468	07m22s
11636	15	2894	Dec 18	06:49:29	3666	11069	A	0.8700	0.9350	37.0N	99.4E	29	492	07m20s
11683	16	2912	Dec 29	14:58:37	3791	11292	A	0.8798	0.9356	38.8N	26.2W	28	507	07m10s
11728	17	2931	Jan 09	23:12:05	3918	11515	A	0.8864	0.9369	40.7N	153.2W	27	510	06m52s
11772	18	2949	Jan 20	07:27:37	4046	11738	A	0.8919	0.9388	43.0N	79.2E	27	504	06m26s
11816	19	2967	Jan 31	15:44:49	4177	11961	A	0.8961	0.9413	45.6N	49.1W	26	490	05m55s
11860	20	2985	Feb 11	00:00:02	4310	12184	A	0.9028	0.9444	48.9N	177.3W	25	477	05m19s
-----	21	3003	Feb 23	08:13:25	4445	12407	A	0.9116	0.9479	52.9N	54.4E	24	465	04m41s
-----	22	3021	Mar 05	16:22:29	4582	12630	A	0.9243	0.9518	57.6N	74.1W	22	463	04m02s
-----	23	3039	Mar 17	00:28:08	4721	12853	A	0.9405	0.9560	62.9N	156.0E	19	477	03m25s
-----	24	3057	Mar 27	08:25:59	4863	13076	A	0.9637	0.9601	69.0N	21.1E	15	559	02m50s
-----	25	3075	Apr 07	16:19:22	5006	13299	An	0.9913	0.9632	73.5N	135.4W	6	-	02m19s

-----	26	3093	Apr 18	00:04:23	5151	13522	P	1.0267	0.9310	71.4N	75.4E	0
-----	27	3111	Apr 30	07:44:44	5299	13745	P	1.0664	0.8629	70.7N	52.2W	0
-----	28	3129	May 10	15:16:03	5448	13968	P	1.1142	0.7796	69.8N	176.9W	0
-----	29	3147	May 21	22:43:49	5600	14191	P	1.1655	0.6887	68.9N	59.9E	0
-----	30	3165	Jun 01	06:04:31	5754	14414	P	1.2235	0.5848	67.9N	60.9W	0
-----	31	3183	Jun 12	13:21:59	5909	14637	P	1.2845	0.4740	66.9N	179.6E	0
-----	32	3201	Jun 22	20:34:47	6067	14860	P	1.3499	0.3541	65.9N	61.7E	0
-----	33	3219	Jul 04	03:46:45	6227	15083	P	1.4166	0.2307	65.0N	55.5W	0
-----	34	3237	Jul 14	10:57:04	6389	15306	Pe	1.4851	0.1030	64.1N	172.0W	0

SAROS SERIES

157

Saros series 157 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

09638 -33 2058 Jun 21 00:19:35 110 723 Pb 1.4869 0.1260 65.9N 9.9E 0

09679	-32	2076	Jul 01	06:50:43	149	946	P	1.4005	0.2746	67.0N	98.1W	0
09720	-31	2094	Jul 12	13:24:35	190	1169	P	1.3150	0.4224	68.0N	152.8E	0
09761	-30	2112	Jul 23	19:58:32	233	1392	P	1.2284	0.5725	69.0N	43.1E	0
09801	-29	2130	Aug 04	02:38:44	277	1615	P	1.1461	0.7158	69.9N	68.7W	0
09843	-28	2148	Aug 14	09:22:21	324	1838	P	1.0655	0.8562	70.7N	178.0E	0
09885	-27	2166	Aug 25	16:13:35	364	2061	An	0.9901	0.9531	74.4N	41.5E	7 - 03m00s
09929	-26	2184	Sep 04	23:11:00	405	2284	A	0.9185	0.9576	67.1N	123.3W	23 393 03m12s
09973	-25	2202	Sep 17	06:18:53	448	2507	A	0.8546	0.9597	57.1N	114.2E	31 281 03m24s
10017	-24	2220	Sep 27	13:35:07	493	2730	A	0.7966	0.9609	48.0N	2.8W	37 232 03m36s
10061	-23	2238	Oct 08	21:01:18	540	2953	A	0.7459	0.9618	40.1N	119.7W	41 206 03m47s
10105	-22	2256	Oct 19	04:37:31	589	3176	A	0.7025	0.9624	33.1N	122.3E	45 190 03m59s
10150	-21	2274	Oct 30	12:24:18	641	3399	A	0.6667	0.9629	27.0N	2.4E	48 179 04m08s
10196	-20	2292	Nov 09	20:20:07	694	3622	A	0.6376	0.9635	22.0N	119.1W	50 171 04m14s
10241	-19	2310	Nov 22	04:24:19	749	3845	A	0.6145	0.9642	17.9N	117.8E	52 164 04m16s
10286	-18	2328	Dec 02	12:36:37	807	4068	A	0.5974	0.9652	14.8N	6.9W	53 157 04m13s
10332	-17	2346	Dec 13	20:55:36	867	4291	A	0.5848	0.9665	12.8N	133.1W	54 149 04m04s
10378	-16	2364	Dec 24	05:18:59	928	4514	A	0.5752	0.9683	11.6N	99.8E	55 139 03m48s
10422	-15	2383	Jan 04	13:46:26	992	4737	A	0.5682	0.9706	11.4N	28.1W	55 128 03m26s
10466	-14	2401	Jan 14	22:15:20	1058	4960	A	0.5617	0.9735	11.9N	156.4W	56 114 03m00s
10509	-13	2419	Jan 26	06:44:37	1126	5183	A	0.5550	0.9770	13.2N	75.2E	56 98 02m30s
10552	-12	2437	Feb 05	15:11:25	1196	5406	A	0.5453	0.9810	14.9N	52.5W	57 79 01m58s
10595	-11	2455	Feb 16	23:36:27	1268	5629	A	0.5335	0.9857	17.1N	179.6W	58 59 01m25s
10637	-10	2473	Feb 27	07:56:51	1342	5852	A	0.5168	0.9907	19.6N	54.6E	59 37 00m53s
10679	-09	2491	Mar 10	16:11:57	1418	6075	A	0.4952	0.9964	22.2N	69.6W	60 14 00m20s
10721	-08	2509	Mar 22	00:20:47	1496	6298	H	0.4676	1.0023	24.8N	168.2E	62 9 00m12s
10762	-07	2527	Apr 02	08:23:26	1576	6521	H	0.4341	1.0086	27.3N	48.1E	64 33 00m45s
10803	-06	2545	Apr 12	16:19:46	1659	6744	H	0.3942	1.0149	29.4N	69.8W	67 55 01m17s
10843	-05	2563	Apr 24	00:08:31	1743	6967	T	0.3474	1.0213	31.1N	174.8E	70 77 01m49s

10883 -04 2581 May 04 07:51:50 1830 7190 T 0.2951 1.0276 32.0N 61.3E 73 98 02m22s
 10924 -03 2599 May 15 15:28:44 1918 7413 T 0.2370 1.0337 32.0N 50.2W 76 117 02m56s
 10965 -02 2617 May 26 23:01:04 2009 7636 T 0.1741 1.0394 31.0N 160.5W 80 134 03m30s
 11006 -01 2635 Jun 07 06:28:22 2102 7859 T 0.1063 1.0447 28.8N 90.3E 84 150 04m04s
 11045 00 2653 Jun 17 13:53:05 2197 8082 T 0.0356 1.0493 25.5N 18.8W 88 164 04m37s
 11086 01 2671 Jun 28 21:15:30 2293 8305 T -0.0374 1.0534 21.1N 128.0W 88 177 05m07s
 11127 02 2689 Jul 09 04:36:31 2392 8528 Tm -0.1123 1.0568 15.8N 122.4E 84 188 05m31s
 11169 03 2707 Jul 21 11:58:10 2493 8751 T -0.1871 1.0593 9.8N 11.7E 79 199 05m48s
 11211 04 2725 Jul 31 19:21:13 2597 8974 T -0.2611 1.0612 3.1N 100.0W 75 208 05m57s
 11254 05 2743 Aug 12 02:47:40 2702 9197 T -0.3329 1.0623 4.0S 146.9E 71 216 05m56s
 11299 06 2761 Aug 22 10:17:10 2809 9420 T -0.4025 1.0626 11.5S 32.4E 66 223 05m47s
 11344 07 2779 Sep 02 17:52:25 2918 9643 T -0.4676 1.0622 19.2S 83.8W 62 230 05m31s
 11389 08 2797 Sep 13 01:33:06 3030 9866 T -0.5286 1.0611 26.9S 158.4E 58 235 05m11s
 11434 09 2815 Sep 24 09:20:27 3143 10089 T -0.5844 1.0596 34.6S 38.7E 54 240 04m48s
 11479 10 2833 Oct 04 17:14:56 3259 10312 T -0.6347 1.0576 42.2S 82.6W 50 244 04m23s
 11525 11 2851 Oct 16 01:17:27 3376 10535 T -0.6786 1.0553 49.5S 154.4E 47 248 04m00s
 11571 12 2869 Oct 26 09:28:07 3496 10758 T -0.7160 1.0528 56.5S 30.1E 44 250 03m38s
 11618 13 2887 Nov 06 17:45:34 3618 10981 T -0.7479 1.0502 63.0S 94.6W 41 252 03m18s
 11665 14 2905 Nov 18 02:11:36 3742 11204 T -0.7731 1.0477 68.9S 141.3E 39 252 03m01s
 11710 15 2923 Nov 29 10:43:53 3867 11427 T -0.7936 1.0454 73.8S 20.2E 37 251 02m47s
 11755 16 2941 Dec 09 19:23:14 3995 11650 T -0.8082 1.0434 77.0S 95.1W 36 248 02m36s
 11799 17 2959 Dec 21 04:06:06 4125 11873 T -0.8202 1.0417 77.9S 155.0E 35 246 02m28s
 11843 18 2977 Dec 31 12:54:33 4258 12096 T -0.8278 1.0405 76.1S 40.7E 34 244 02m23s
 11888 19 2996 Jan 11 21:44:38 4392 12319 T -0.8345 1.0397 72.9S 81.5W 33 243 02m20s
 ----- 20 3014 Jan 23 06:36:40 4528 12542 T -0.8397 1.0394 68.9S 150.1E 33 244 02m20s
 ----- 21 3032 Feb 03 15:27:40 4666 12765 T -0.8461 1.0395 64.9S 19.0E 32 248 02m22s
 ----- 22 3050 Feb 14 00:17:54 4807 12988 T -0.8533 1.0400 61.0S 113.6W 31 255 02m26s
 ----- 23 3068 Feb 25 09:03:58 4949 13211 T -0.8641 1.0407 57.5S 114.4E 30 268 02m31s

-----	24	3086	Mar 07	17:46:00	5094	13434	T	-0.8784	1.0416	54.6S	16.9W	28	287	02m38s
-----	25	3104	Mar 19	02:22:05	5240	13657	T	-0.8979	1.0426	52.7S	146.4W	26	318	02m44s
-----	26	3122	Mar 30	10:52:38	5389	13880	T	-0.9220	1.0433	51.9S	85.9E	22	368	02m50s
-----	27	3140	Apr 09	19:14:26	5540	14103	T	-0.9534	1.0436	53.2S	37.8W	17	480	02m51s
-----	28	3158	Apr 21	03:29:39	5693	14326	Ts	-0.9899	1.0421	58.3S	153.9W	7	-	02m39s
-----	29	3176	May 01	11:35:58	5848	14549	P	-1.0337	0.9515	62.3S	88.4E	0		
-----	30	3194	May 12	19:36:07	6005	14772	P	-1.0825	0.8589	63.0S	40.0W	0		
-----	31	3212	May 23	03:26:31	6164	14995	P	-1.1388	0.7514	63.8S	166.3W	0		
-----	32	3230	Jun 03	11:12:09	6325	15218	P	-1.1988	0.6368	64.6S	68.4E	0		
-----	33	3248	Jun 13	18:49:45	6488	15441	P	-1.2645	0.5110	65.6S	55.2W	0		
-----	34	3266	Jun 25	02:23:46	6653	15664	P	-1.3329	0.3802	66.6S	178.3W	0		
-----	35	3284	Jul 05	09:51:17	6820	15887	P	-1.4059	0.2406	67.6S	59.9E	0		
-----	36	3302	Jul 17	17:17:19	6990	16110	Pe	-1.4796	0.1004	68.6S	62.1W	0		

SAROS SERIES

158

Saros series 158 contains 70 solar eclipses.

NUM.	NUM.	DATE	OF	s	NUM.	TYPE	MAG.	°	°	ALT	WIDTH	DUR.
GREATEST										°	km	
ECLIPSE												

09663	-36	2069	May 20	17:53:18	133	858	Pb	-1.4852	0.0879	68.8S	69.9W	0
09704	-35	2087	Jun 01	01:27:14	173	1081	P	-1.4186	0.2146	67.8S	165.4E	0
09745	-34	2105	Jun 12	08:58:11	215	1304	P	-1.3489	0.3483	66.8S	41.9E	0
09786	-33	2123	Jun 23	16:26:12	259	1527	P	-1.2763	0.4882	65.8S	80.3W	0
09827	-32	2141	Jul 03	23:53:38	306	1750	P	-1.2029	0.6305	64.9S	158.0E	0
09869	-31	2159	Jul 15	07:20:50	348	1973	P	-1.1288	0.7743	64.0S	36.7E	0
09912	-30	2177	Jul 25	14:50:33	388	2196	P	-1.0564	0.9149	63.2S	85.0W	0
09956	-29	2195	Aug 05	22:21:03	431	2419	Ts	-0.9843	1.0618	56.1S	166.4E	9 - 04m03s
10000	-28	2213	Aug 17	05:56:32	475	2642	T	-0.9161	1.0653	46.0S	60.3E	23 525 04m35s
10044	-27	2231	Aug 28	13:35:31	521	2865	T	-0.8506	1.0661	41.4S	52.2W	31 402 04m43s
10088	-26	2249	Sep 07	21:21:29	570	3088	T	-0.7907	1.0656	39.4S	167.4W	38 343 04m42s
10133	-25	2267	Sep 19	05:12:14	620	3311	T	-0.7348	1.0642	38.8S	75.9E	42 304 04m34s
10178	-24	2285	Sep 29	13:11:38	673	3534	T	-0.6859	1.0621	39.6S	42.9W	46 275 04m24s
10223	-23	2303	Oct 11	21:17:25	727	3757	T	-0.6424	1.0596	41.1S	163.2W	50 252 04m12s
10268	-22	2321	Oct 22	05:31:18	784	3980	T	-0.6059	1.0567	43.3S	74.8E	52 233 04m00s
10313	-21	2339	Nov 02	13:51:50	843	4203	T	-0.5751	1.0536	45.8S	48.3W	55 215 03m47s
10359	-20	2357	Nov 12	22:20:23	904	4426	T	-0.5514	1.0505	48.4S	172.7W	56 200 03m35s
10404	-19	2375	Nov 24	06:54:54	967	4649	T	-0.5328	1.0474	50.7S	62.3E	58 186 03m23s
10448	-18	2393	Dec 04	15:34:35	1032	4872	T	-0.5188	1.0445	52.6S	63.0W	58 174 03m13s
10492	-17	2411	Dec 16	00:19:07	1099	5095	T	-0.5093	1.0419	53.6S	171.2E	59 163 03m04s
10535	-16	2429	Dec 26	09:07:20	1168	5318	T	-0.5035	1.0397	53.7S	44.9E	60 155 02m57s
10578	-15	2448	Jan 06	17:57:07	1239	5541	T	-0.4991	1.0380	52.6S	82.0W	60 147 02m51s
10621	-14	2466	Jan 17	02:47:01	1312	5764	T	-0.4953	1.0366	50.4S	150.3E	60 142 02m48s
10663	-13	2484	Jan 28	11:35:53	1388	5987	T	-0.4910	1.0358	47.2S	21.5E	60 138 02m48s
10705	-12	2502	Feb 08	20:22:29	1465	6210	T	-0.4851	1.0354	43.3S	107.9W	61 136 02m49s

10746	-11	2520	Feb 20	05:04:06	1544	6433	T	-0.4758	1.0353	38.7S	122.7E	61	135	02m54s
10787	-10	2538	Mar 02	13:41:10	1626	6656	T	-0.4629	1.0357	33.6S	6.5W	62	135	03m01s
10827	-09	2556	Mar 12	22:11:21	1710	6879	T	-0.4447	1.0362	28.1S	134.7W	63	135	03m10s
10867	-08	2574	Mar 24	06:34:21	1795	7102	T	-0.4208	1.0371	22.3S	98.3E	65	137	03m21s
10907	-07	2592	Apr 03	14:48:32	1883	7325	T	-0.3902	1.0378	16.3S	26.7W	67	137	03m32s
10949	-06	2610	Apr 15	22:55:08	1973	7548	T	-0.3537	1.0387	10.2S	150.0W	69	138	03m44s
10990	-05	2628	Apr 26	06:52:57	2065	7771	T	-0.3105	1.0392	4.0S	89.1E	72	138	03m53s
11030	-04	2646	May 07	14:41:46	2159	7994	T	-0.2602	1.0396	2.1N	29.4W	75	137	04m00s
11070	-03	2664	May 17	22:22:49	2255	8217	T	-0.2040	1.0395	7.9N	145.4W	78	135	04m02s
11111	-02	2682	May 29	05:56:13	2353	8440	T	-0.1419	1.0390	13.5N	100.9E	82	132	03m59s
11153	-01	2700	Jun 09	13:23:20	2453	8663	Tm	-0.0753	1.0379	18.7N	10.5W	86	128	03m49s
11195	00	2718	Jun 20	20:43:15	2556	8886	T	-0.0034	1.0362	23.3N	119.4W	90	122	03m34s
11237	01	2736	Jul 01	03:59:45	2660	9109	T	0.0707	1.0339	27.1N	133.3E	86	114	03m15s
11280	02	2754	Jul 12	11:11:56	2766	9332	T	0.1479	1.0308	30.2N	27.8E	81	105	02m52s
11325	03	2772	Jul 22	18:22:15	2875	9555	T	0.2259	1.0272	32.4N	76.7W	77	95	02m27s
11371	04	2790	Aug 03	01:30:57	2986	9778	T	0.3044	1.0228	33.9N	179.4E	72	81	02m00s
11416	05	2808	Aug 13	08:40:55	3098	10001	T	0.3810	1.0178	34.5N	75.3E	67	66	01m32s
11461	06	2826	Aug 24	15:52:15	3213	10224	H	0.4557	1.0123	34.6N	29.4W	63	47	01m03s
11507	07	2844	Sep 03	23:05:38	3330	10447	H	0.5278	1.0063	34.5N	135.0W	58	25	00m32s
11553	08	2862	Sep 15	06:23:08	3449	10670	A	0.5956	0.9999	34.2N	117.9E	53	0	00m01s
11599	09	2880	Sep 25	13:45:31	3569	10893	A	0.6583	0.9932	34.0N	9.1E	49	31	00m36s
11646	10	2898	Oct 06	21:13:41	3692	11116	A	0.7154	0.9864	34.1N	101.8W	44	67	01m13s
11692	11	2916	Oct 18	04:47:37	3818	11339	A	0.7665	0.9794	34.6N	145.3E	40	111	01m54s
11737	12	2934	Oct 29	12:28:43	3945	11562	A	0.8111	0.9727	35.6N	29.9E	36	163	02m35s
11781	13	2952	Nov 08	20:16:40	4074	11785	A	0.8489	0.9660	37.2N	87.8W	32	227	03m18s
11825	14	2970	Nov 20	04:10:31	4205	12008	A	0.8810	0.9597	39.2N	152.3E	28	305	03m59s
11869	15	2988	Nov 30	12:11:10	4339	12231	A	0.9066	0.9538	41.7N	29.8E	25	398	04m38s
-----	16	3006	Dec 12	20:17:01	4474	12454	A	0.9271	0.9484	44.4N	94.7W	22	508	05m11s

-----	17	3024	Dec 23	04:28:14	4612	12677	A	0.9426	0.9437	47.4N	138.6E	19	632	05m37s
-----	18	3043	Jan 03	12:41:05	4751	12900	A	0.9561	0.9395	50.8N	10.7E	16	784	05m55s
-----	19	3061	Jan 13	20:57:30	4893	13123	A	0.9658	0.9359	54.1N	119.0W	14	951	06m05s
-----	20	3079	Jan 25	05:13:22	5036	13346	A	0.9751	0.9330	58.0N	110.2E	12	1184	06m07s
-----	21	3097	Feb 04	13:28:42	5182	13569	An	0.9846	0.9305	62.5N	22.7W	9	-	06m00s
-----	22	3115	Feb 16	21:39:29	5330	13792	A+	0.9970	0.9634	71.2N	169.1W	0		
-----	23	3133	Feb 27	05:47:09	5480	14015	A+	1.0115	0.9386	71.9N	56.0E	0		
-----	24	3151	Mar 10	13:47:51	5632	14238	P	1.0308	0.9057	72.3N	77.7W	0		
-----	25	3169	Mar 20	21:41:29	5786	14461	P	1.0551	0.8645	72.4N	150.1E	0		
-----	26	3187	Apr 01	05:26:11	5942	14684	P	1.0861	0.8122	72.3N	20.3E	0		
-----	27	3205	Apr 11	13:02:42	6101	14907	P	1.1231	0.7496	71.9N	107.3W	0		
-----	28	3223	Apr 22	20:28:46	6261	15130	P	1.1679	0.6739	71.2N	128.4E	0		
-----	29	3241	May 03	03:45:42	6423	15353	P	1.2193	0.5866	70.4N	6.9E	0		
-----	30	3259	May 14	10:52:59	6588	15576	P	1.2777	0.4872	69.5N	111.5W	0		
-----	31	3277	May 24	17:52:27	6754	15799	P	1.3417	0.3780	68.5N	132.7E	0		
-----	32	3295	Jun 05	00:42:06	6923	16022	P	1.4130	0.2563	67.5N	19.9E	0		
-----	33	3313	Jun 16	07:26:19	7093	16245	Pe	1.4877	0.1283	66.5N	90.9W	0		

SAROS SERIES

159

Saros series 159 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
ECLIPSE													

09810	-34	2134	May 23	23:01:18	287	1662	Pb	1.5285	0.0308	63.7N	55.3E	0							
09852	-33	2152	Jun 03	06:11:19	333	1885	P	1.4645	0.1478	64.5N	61.5W	0							
09894	-32	2170	Jun 14	13:15:10	372	2108	P	1.3963	0.2719	65.4N	177.1W	0							
09938	-31	2188	Jun 24	20:14:39	414	2331	P	1.3252	0.4008	66.4N	68.0E	0							
09983	-30	2206	Jul 07	03:10:26	457	2554	P	1.2516	0.5335	67.4N	46.3W	0							
10026	-29	2224	Jul 17	10:03:58	503	2777	P	1.1767	0.6677	68.4N	160.6W	0							
10070	-28	2242	Jul 28	16:57:12	550	3000	P	1.1020	0.8004	69.3N	84.8E	0							
10115	-27	2260	Aug 07	23:51:13	600	3223	P	1.0287	0.9293	70.2N	30.7W	0							
10160	-26	2278	Aug 19	06:46:23	652	3446	A	0.9569	0.9712	75.8N	155.8E	16	367	01m	53s				
10206	-25	2296	Aug 29	13:45:40	706	3669	A	0.8888	0.9689	66.6N	15.0E	27	245	02m	20s				
10251	-24	2314	Sep 10	20:49:11	761	3892	A	0.8247	0.9654	56.8N	103.3W	34	220	02m	54s				
10296	-23	2332	Sep 21	03:59:10	819	4115	A	0.7666	0.9613	47.9N	142.3E	40	217	03m	34s				
10342	-22	2350	Oct 02	11:14:07	879	4338	A	0.7131	0.9568	39.8N	28.7E	44	222	04m	22s				
10387	-21	2368	Oct 12	18:37:20	942	4561	A	0.6672	0.9522	32.5N	85.8W	48	233	05m	13s				
10431	-20	2386	Oct 24	02:06:43	1006	4784	A	0.6268	0.9475	26.1N	158.8E	51	246	06m	09s				
10475	-19	2404	Nov 03	09:44:07	1072	5007	A	0.5935	0.9430	20.5N	42.0E	53	260	07m	05s				
10518	-18	2422	Nov 14	17:27:40	1140	5230	A	0.5657	0.9386	15.9N	75.8W	55	275	08m	01s				
10561	-17	2440	Nov 25	01:18:39	1211	5453	A	0.5445	0.9347	12.2N	164.9E	57	290	08m	51s				
10604	-16	2458	Dec 06	09:14:46	1283	5676	A	0.5280	0.9311	9.5N	44.7E	58	303	09m	34s				
10647	-15	2476	Dec 16	17:15:18	1358	5899	A	0.5154	0.9282	7.7N	76.3W	59	314	10m	04s				
10689	-14	2494	Dec 28	01:19:28	1434	6122	A	0.5061	0.9257	6.9N	161.8E	60	323	10m	22s				

10731	-13	2513	Jan 08	09:25:23	1513	6345	A	0.4982	0.9240	7.0N	39.7E	60	329	10m25s
10771	-12	2531	Jan 19	17:31:19	1594	6568	A	0.4908	0.9228	7.9N	82.4W	61	332	10m17s
10811	-11	2549	Jan 30	01:34:51	1676	6791	A	0.4815	0.9223	9.4N	156.1E	61	331	10m00s
10851	-10	2567	Feb 10	09:35:51	1761	7014	A	0.4703	0.9223	11.4N	35.2E	62	328	09m37s
10891	-09	2585	Feb 20	17:31:56	1848	7237	A	0.4550	0.9230	13.8N	84.3W	63	321	09m11s
10932	-08	2603	Mar 05	01:21:16	1937	7460	A	0.4345	0.9243	16.3N	158.1E	64	312	08m45s
10973	-07	2621	Mar 15	09:03:08	2028	7683	A	0.4080	0.9260	18.9N	42.7E	66	301	08m20s
11014	-06	2639	Mar 26	16:36:39	2122	7906	A	0.3749	0.9281	21.4N	70.2W	68	288	07m58s
11054	-05	2657	Apr 06	00:01:46	2217	8129	A	0.3350	0.9305	23.6N	179.4E	70	274	07m38s
11095	-04	2675	Apr 17	07:16:48	2314	8352	A	0.2868	0.9331	25.3N	72.2E	73	259	07m23s
11137	-03	2693	Apr 27	14:23:45	2414	8575	A	0.2320	0.9359	26.4N	32.5W	76	245	07m12s
11179	-02	2711	May 09	21:21:41	2515	8798	A	0.1701	0.9385	26.5N	134.7W	80	231	07m05s
11221	-01	2729	May 20	04:11:51	2619	9021	A	0.1017	0.9412	25.6N	125.3E	84	219	07m01s
11264	00	2747	May 31	10:54:36	2724	9244	A	0.0271	0.9436	23.5N	27.0E	88	208	07m01s
11309	01	2765	Jun 10	17:31:59	2832	9467	Am	-0.0520	0.9459	20.2N	70.4W	87	200	07m02s
11353	02	2783	Jun 22	00:05:19	2942	9690	A	-0.1347	0.9477	15.7N	167.4W	82	194	07m04s
11398	03	2801	Jul 02	06:34:26	3053	9913	A	-0.2210	0.9492	10.2N	95.8E	77	191	07m03s
11443	04	2819	Jul 13	13:03:16	3167	10136	A	-0.3075	0.9502	3.8N	1.7W	72	192	06m58s
11488	05	2837	Jul 23	19:31:12	3283	10359	A	-0.3949	0.9508	3.5S	99.8W	67	196	06m47s
11534	06	2855	Aug 04	02:02:02	3401	10582	A	-0.4802	0.9510	11.3S	160.5E	61	204	06m32s
11581	07	2873	Aug 14	08:34:15	3521	10805	A	-0.5646	0.9506	19.8S	59.8E	55	218	06m12s
11628	08	2891	Aug 25	15:12:39	3644	11028	A	-0.6441	0.9498	28.6S	43.3W	50	238	05m52s
11675	09	2909	Sep 05	21:55:40	3768	11251	A	-0.7198	0.9486	37.7S	148.5W	44	269	05m31s
11720	10	2927	Sep 17	04:46:05	3894	11474	A	-0.7897	0.9470	47.1S	103.2E	38	314	05m10s
11764	11	2945	Sep 27	11:43:51	4023	11697	A	-0.8539	0.9451	56.6S	9.2W	31	387	04m50s
11808	12	2963	Oct 08	18:51:34	4153	11920	A	-0.9105	0.9428	66.0S	129.0W	24	514	04m32s
11852	13	2981	Oct 19	02:08:17	4286	12143	A	-0.9600	0.9400	74.1S	93.7E	16	820	04m14s
11896	14	2999	Oct 30	09:34:33	4420	12366	A-	-1.0023	0.9586	70.9S	84.7W	0		

-----	15	3017	Nov 10	17:10:26	4557	12589	P	-1.0372	0.8987	70.0S	149.2E	0
-----	16	3035	Nov 22	00:56:10	4696	12812	P	-1.0649	0.8511	69.1S	21.3E	0
-----	17	3053	Dec 02	08:50:05	4837	13035	P	-1.0866	0.8142	68.0S	108.0W	0
-----	18	3071	Dec 13	16:52:15	4979	13258	P	-1.1023	0.7874	66.9S	121.2E	0
-----	19	3089	Dec 24	01:00:48	5124	13481	P	-1.1136	0.7683	65.9S	10.7W	0
-----	20	3108	Jan 05	09:15:32	5272	13704	P	-1.1207	0.7566	64.9S	143.7W	0
-----	21	3126	Jan 15	17:32:44	5421	13927	P	-1.1266	0.7472	63.9S	83.0E	0
-----	22	3144	Jan 27	01:53:36	5572	14150	P	-1.1302	0.7416	63.1S	50.9W	0
-----	23	3162	Feb 06	10:13:36	5725	14373	P	-1.1352	0.7337	62.4S	175.7E	0
-----	24	3180	Feb 17	18:33:35	5880	14596	P	-1.1408	0.7250	61.9S	42.5E	0
-----	25	3198	Feb 28	02:49:03	6038	14819	P	-1.1507	0.7087	61.5S	89.4W	0
-----	26	3216	Mar 10	11:02:26	6197	15042	P	-1.1629	0.6883	61.2S	139.3E	0
-----	27	3234	Mar 21	19:09:35	6359	15265	P	-1.1811	0.6574	61.2S	9.5E	0
-----	28	3252	Apr 01	03:11:27	6523	15488	P	-1.2039	0.6178	61.3S	118.9W	0
-----	29	3270	Apr 12	11:05:55	6688	15711	P	-1.2333	0.5662	61.6S	114.5E	0
-----	30	3288	Apr 22	18:54:48	6856	15934	P	-1.2678	0.5048	62.0S	10.8W	0
-----	31	3306	May 05	02:36:34	7026	16157	P	-1.3088	0.4309	62.6S	134.5W	0
-----	32	3324	May 15	10:12:08	7198	16380	P	-1.3555	0.3458	63.3S	103.1E	0
-----	33	3342	May 26	17:41:58	7372	16603	P	-1.4075	0.2501	64.1S	18.0W	0
-----	34	3360	Jun 06	01:07:24	7548	16826	P	-1.4633	0.1464	65.0S	138.3W	0
-----	35	3378	Jun 17	08:27:56	7726	17049	Pe	-1.5236	0.0332	65.9S	102.2E	0

SAROS SERIES

Saros series 160 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													
09921	-34	2181 May 13	14:55:43	397	2243	Pb	-1.5323	0.0510	69.4S	16.9W	0		
09965	-33	2199 May 24	21:42:07	440	2466	P	-1.4596	0.1742	68.5S	130.1W	0		
10009	-32	2217 Jun 05	04:22:20	485	2689	P	-1.3807	0.3094	67.5S	118.9E	0		
10053	-31	2235 Jun 16	11:00:36	531	2912	P	-1.2990	0.4502	66.5S	8.8E	0		
10097	-30	2253 Jun 26	17:36:11	580	3135	P	-1.2139	0.5981	65.5S	100.1W	0		
10142	-29	2271 Jul 08	00:13:02	631	3358	P	-1.1284	0.7474	64.5S	151.1E	0		
10188	-28	2289 Jul 18	06:50:58	684	3581	P	-1.0426	0.8980	63.6S	42.3E	0		
10233	-27	2307 Jul 30	13:31:16	739	3804	A	-0.9574	0.9602	50.0S	48.7W	16	501	03m37s
10278	-26	2325 Aug 09	20:16:24	796	4027	A	-0.8749	0.9648	40.3S	146.1W	29	256	03m24s
10323	-25	2343 Aug 21	03:07:05	855	4250	A	-0.7957	0.9679	35.1S	112.8E	37	186	03m09s
10369	-24	2361 Aug 31	10:04:30	917	4473	A	-0.7211	0.9701	32.2S	9.7E	44	151	02m54s
10413	-23	2379 Sep 11	17:09:32	980	4696	A	-0.6518	0.9717	30.9S	95.4W	49	130	02m42s
10457	-22	2397 Sep 22	00:23:55	1046	4919	A	-0.5892	0.9728	30.9S	157.2E	54	118	02m34s
10500	-21	2415 Oct 03	07:47:48	1113	5142	A	-0.5335	0.9736	31.8S	47.4E	58	110	02m27s
10543	-20	2433 Oct 13	15:20:16	1183	5365	A	-0.4840	0.9742	33.4S	64.2W	61	104	02m23s
10586	-19	2451 Oct 24	23:03:09	1254	5588	A	-0.4424	0.9746	35.3S	178.3W	64	101	02m21s
10629	-18	2469 Nov 04	06:55:37	1328	5811	A	-0.4081	0.9750	37.5S	65.7E	66	97	02m19s

10672	-17	2487	Nov 15	14:57:35	1404	6034	A	-0.3807	0.9756	39.5S	52.3W	67	94	02m16s
10714	-16	2505	Nov 26	23:07:04	1482	6257	A	-0.3588	0.9763	41.2S	171.6W	69	91	02m13s
10755	-15	2523	Dec 08	07:24:54	1561	6480	A	-0.3431	0.9774	42.4S	67.5E	70	86	02m08s
10796	-14	2541	Dec 18	15:48:55	1643	6703	A	-0.3319	0.9788	42.8S	54.7W	70	80	02m01s
10836	-13	2559	Dec 30	00:17:19	1728	6926	A	-0.3237	0.9808	42.2S	177.9W	71	72	01m50s
10876	-12	2578	Jan 09	08:49:00	1814	7149	A	-0.3176	0.9831	40.7S	57.7E	71	63	01m37s
10916	-11	2596	Jan 20	17:22:01	1902	7372	A	-0.3119	0.9862	38.3S	67.6W	72	51	01m20s
10957	-10	2614	Feb 01	01:55:16	1992	7595	A	-0.3058	0.9897	35.0S	166.3E	72	38	01m00s
10998	-09	2632	Feb 12	10:25:37	2085	7818	A	-0.2969	0.9938	30.9S	40.1E	73	23	00m36s
11038	-08	2650	Feb 22	18:53:59	2179	8041	A	-0.2856	0.9984	26.2S	86.4W	73	6	00m09s
11079	-07	2668	Mar 05	03:17:08	2276	8264	H	-0.2697	1.0035	21.0S	147.7E	74	13	00m21s
11120	-06	2686	Mar 16	11:34:58	2374	8487	H	-0.2486	1.0090	15.4S	22.6E	76	32	00m54s
11162	-05	2704	Mar 27	19:45:56	2475	8710	H	-0.2211	1.0148	9.5S	101.1W	77	52	01m29s
11204	-04	2722	Apr 08	03:51:03	2577	8933	T	-0.1881	1.0208	3.5S	136.6E	79	72	02m06s
11247	-03	2740	Apr 18	11:49:23	2682	9156	T	-0.1487	1.0268	2.7N	15.9E	81	92	02m43s
11290	-02	2758	Apr 29	19:40:31	2789	9379	T	-0.1026	1.0328	8.9N	102.7W	84	111	03m18s
11335	-01	2776	May 10	03:25:50	2898	9602	T	-0.0507	1.0386	14.9N	140.5E	87	130	03m50s
11380	00	2794	May 21	11:05:18	3009	9825	T	0.0070	1.0441	20.7N	25.6E	89	147	04m16s
11425	01	2812	May 31	18:39:58	3122	10048	Tm	0.0694	1.0493	26.2N	87.3W	86	164	04m36s
11470	02	2830	Jun 12	02:09:55	3237	10271	T	0.1365	1.0538	31.1N	161.8E	82	180	04m50s
11516	03	2848	Jun 22	09:37:37	3355	10494	T	0.2062	1.0578	35.3N	52.3E	78	195	04m57s
11562	04	2866	Jul 03	17:03:16	3474	10717	T	0.2785	1.0610	38.7N	55.8W	74	209	04m59s
11609	05	2884	Jul 14	00:27:39	3595	10940	T	0.3523	1.0635	41.3N	162.8W	69	222	04m58s
11656	06	2902	Jul 26	07:52:48	3719	11163	T	0.4260	1.0651	42.9N	90.4E	65	235	04m54s
11702	07	2920	Aug 05	15:19:10	3844	11386	T	0.4991	1.0660	43.8N	16.6W	60	248	04m48s
11747	08	2938	Aug 16	22:49:03	3972	11609	T	0.5697	1.0660	43.9N	124.7W	55	261	04m42s
11791	09	2956	Aug 27	06:20:57	4101	11832	T	0.6387	1.0653	43.8N	126.2E	50	274	04m34s
11835	10	2974	Sep 07	13:59:21	4233	12055	T	0.7028	1.0638	43.5N	14.9E	45	289	04m25s

11879 11 2992 Sep 17 21:42:08 4367 12278 T 0.7636 1.0617 43.5N 98.1W 40 307 04m16s

----- 12 3010 Sep 30 05:32:38 4503 12501 T 0.8180 1.0589 43.8N 146.3E 35 330 04m05s

----- 13 3028 Oct 10 13:28:55 4641 12724 T 0.8679 1.0556 44.9N 28.8E 29 362 03m53s

----- 14 3046 Oct 21 21:34:28 4781 12947 T 0.9104 1.0520 46.7N 91.6W 24 409 03m38s

----- 15 3064 Nov 01 05:46:35 4923 13170 T 0.9478 1.0479 49.8N 146.2E 18 497 03m20s

----- 16 3082 Nov 12 14:06:37 5067 13393 T 0.9789 1.0433 54.7N 22.5E 11 734 02m57s

----- 17 3100 Nov 23 22:33:38 5213 13616 T+ 1.0045 1.0050 63.6N 98.5W 0

----- 18 3118 Dec 05 07:08:23 5362 13839 P 1.0236 0.9677 64.5N 123.9E 0

----- 19 3136 Dec 15 15:48:20 5512 14062 P 1.0390 0.9376 65.5N 15.2W 0

----- 20 3154 Dec 27 00:33:10 5664 14285 P 1.0503 0.9153 66.5N 156.0W 0

----- 21 3173 Jan 06 09:21:40 5819 14508 P 1.0588 0.8987 67.6N 61.8E 0

----- 22 3191 Jan 17 18:13:12 5976 14731 P 1.0647 0.8871 68.7N 81.7W 0

----- 23 3209 Jan 28 03:04:14 6134 14954 P 1.0711 0.8749 69.7N 134.3E 0

----- 24 3227 Feb 08 11:55:28 6295 15177 P 1.0772 0.8632 70.6N 10.4W 0

----- 25 3245 Feb 18 20:43:30 6458 15400 P 1.0861 0.8465 71.4N 154.9W 0

----- 26 3263 Mar 02 05:29:09 6623 15623 P 1.0969 0.8265 71.9N 60.6E 0

----- 27 3281 Mar 12 14:08:09 6790 15846 P 1.1129 0.7964 72.2N 82.6W 0

----- 28 3299 Mar 23 22:43:04 6959 16069 P 1.1324 0.7600 72.3N 135.0E 0

----- 29 3317 Apr 04 07:09:55 7130 16292 P 1.1584 0.7111 72.0N 5.2W 0

----- 30 3335 Apr 15 15:30:11 7303 16515 P 1.1899 0.6518 71.6N 143.4W 0

----- 31 3353 Apr 25 23:41:33 7478 16738 P 1.2286 0.5786 70.9N 81.1E 0

----- 32 3371 May 07 07:46:17 7655 16961 P 1.2726 0.4952 70.1N 52.0W 0

----- 33 3389 May 17 15:42:38 7835 17184 P 1.3232 0.3991 69.2N 177.6E 0

----- 34 3407 May 29 23:31:28 8016 17407 P 1.3796 0.2919 68.2N 49.7E 0

----- 35 3425 Jun 09 07:13:18 8200 17630 P 1.4414 0.1744 67.2N 76.0W 0

----- 36 3443 Jun 20 14:48:56 8385 17853 Pe 1.5079 0.0482 66.2N 160.5E 0

SAROS SERIES

161

Saros series 161 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

09904	-37	2174	Apr 01	22:39:09	381	2155	Pb	1.5107	0.0470	61.2N	103.8E	0	
09948	-36	2192	Apr 12	06:41:56	423	2378	P	1.4678	0.1260	61.5N	25.4W	0	
09993	-35	2210	Apr 24	14:39:19	467	2601	P	1.4202	0.2148	61.9N	153.4W	0	
10036	-34	2228	May 04	22:28:44	513	2824	P	1.3659	0.3173	62.4N	80.4E	0	
10080	-33	2246	May 16	06:14:10	561	3047	P	1.3077	0.4284	63.1N	44.9W	0	
10125	-32	2264	May 26	13:52:07	611	3270	P	1.2430	0.5526	63.9N	168.5W	0	
10170	-31	2282	Jun 06	21:28:19	663	3493	P	1.1764	0.6815	64.8N	68.1E	0	
10216	-30	2300	Jun 18	04:59:29	717	3716	P	1.1056	0.8189	65.7N	54.5W	0	
10261	-29	2318	Jun 29	12:30:22	773	3939	P	1.0340	0.9583	66.7N	177.3W	0	
10306	-28	2336	Jul 09	19:58:22	832	4162	T	0.9598	1.0657	83.2N	49.4E	16	800 03m17s
10352	-27	2354	Jul 21	03:28:22	892	4385	T	0.8870	1.0697	81.4N	171.7E	27	499 03m51s

10397	-26	2372	Jul 31	10:58:30	955	4608	T	0.8144	1.0717	71.0N	45.5E	35	404	04m18s
10440	-25	2390	Aug 11	18:31:27	1019	4831	T	0.7441	1.0724	61.3N	72.5W	42	353	04m41s
10484	-24	2408	Aug 22	02:07:39	1086	5054	T	0.6766	1.0720	52.3N	170.0E	47	317	05m00s
10527	-23	2426	Sep 02	09:48:47	1155	5277	T	0.6133	1.0709	43.8N	51.6E	52	291	05m14s
10570	-22	2444	Sep 12	17:35:35	1226	5500	T	0.5548	1.0688	35.7N	67.9W	56	268	05m23s
10613	-21	2462	Sep 24	01:28:08	1299	5723	T	0.5014	1.0662	28.1N	171.4E	60	249	05m28s
10655	-20	2480	Oct 04	09:27:58	1374	5946	T	0.4543	1.0631	21.1N	49.2E	63	231	05m26s
10697	-19	2498	Oct 15	17:34:44	1451	6169	T	0.4131	1.0597	14.6N	74.5W	66	215	05m21s
10739	-18	2516	Oct 27	01:48:46	1530	6392	T	0.3782	1.0560	8.8N	160.5E	68	199	05m11s
10780	-17	2534	Nov 07	10:10:07	1611	6615	T	0.3495	1.0522	3.9N	34.0E	70	184	04m58s
10820	-16	2552	Nov 17	18:38:45	1694	6838	T	0.3269	1.0485	0.3S	93.9W	71	170	04m42s
10860	-15	2570	Nov 29	03:13:44	1779	7061	T	0.3100	1.0449	3.4S	137.1E	72	158	04m25s
10900	-14	2588	Dec 09	11:53:28	1867	7284	T	0.2973	1.0416	5.6S	7.2E	73	146	04m07s
10941	-13	2606	Dec 21	20:37:56	1956	7507	T	0.2888	1.0387	6.7S	123.7W	73	135	03m50s
10982	-12	2625	Jan 01	05:25:27	2048	7730	T	0.2829	1.0361	6.8S	104.8E	74	126	03m32s
11022	-11	2643	Jan 12	14:14:06	2142	7953	T	0.2784	1.0341	6.0S	27.0W	74	119	03m18s
11062	-10	2661	Jan 22	23:02:23	2237	8176	T	0.2740	1.0324	4.4S	158.8W	74	113	03m04s
11103	-09	2679	Feb 03	07:49:00	2335	8399	T	0.2685	1.0312	2.1S	69.7E	74	109	02m54s
11145	-08	2697	Feb 13	16:33:04	2435	8622	T	0.2612	1.0305	0.7N	61.3W	75	106	02m46s
11187	-07	2715	Feb 26	01:11:19	2537	8845	T	0.2495	1.0302	3.7N	169.2E	76	105	02m42s
11230	-06	2733	Mar 08	09:44:50	2641	9068	T	0.2343	1.0301	7.0N	40.8E	76	104	02m39s
11273	-05	2751	Mar 19	18:10:35	2747	9291	T	0.2131	1.0303	10.2N	85.4W	78	105	02m38s
11318	-04	2769	Mar 30	02:29:32	2855	9514	T	0.1866	1.0307	13.2N	150.3E	79	105	02m40s
11363	-03	2787	Apr 10	10:38:57	2965	9737	T	0.1525	1.0310	15.7N	28.7E	81	106	02m43s
11408	-02	2805	Apr 20	18:41:09	3077	9960	T	0.1129	1.0313	17.7N	90.7W	83	106	02m46s
11453	-01	2823	May 02	02:34:05	3192	10183	Tm	0.0662	1.0314	18.9N	152.6E	86	106	02m51s
11498	00	2841	May 12	10:18:35	3308	10406	T	0.0129	1.0312	19.1N	38.2E	89	105	02m55s
11544	01	2859	May 23	17:54:35	3426	10629	T	-0.0467	1.0305	18.2N	74.0W	87	103	02m58s

11590 02 2877 Jun 03 01:23:34 3547 10852 T -0.1114 1.0294 16.2N 175.3E 84 100 02m58s
 11637 03 2895 Jun 14 08:45:51 3670 11075 T -0.1811 1.0278 12.9N 65.9E 80 96 02m55s
 11684 04 2913 Jun 25 16:01:38 3794 11298 T -0.2551 1.0255 8.5N 42.4W 75 90 02m45s
 11729 05 2931 Jul 06 23:13:24 3921 11521 T -0.3316 1.0226 3.1N 150.5W 71 81 02m30s
 11773 06 2949 Jul 17 06:21:27 4050 11744 T -0.4099 1.0189 3.2S 101.6E 66 71 02m06s
 11817 07 2967 Jul 28 13:27:22 4181 11967 H3 -0.4892 1.0147 10.4S 6.5W 61 58 01m37s
 11861 08 2985 Aug 07 20:31:50 4314 12190 H -0.5686 1.0097 18.3S 115.0W 55 41 01m02s
 ----- 09 3003 Aug 20 03:37:08 4449 12413 H -0.6463 1.0042 26.8S 135.4E 50 19 00m26s
 ----- 10 3021 Aug 30 10:44:28 4586 12636 A -0.7210 0.9980 35.7S 24.4E 44 10 00m11s
 ----- 11 3039 Sep 10 17:53:36 4725 12859 A -0.7932 0.9914 45.2S 88.5W 37 49 00m46s
 ----- 12 3057 Sep 21 01:07:57 4867 13082 A -0.8600 0.9842 55.0S 155.0E 30 109 01m17s
 ----- 13 3075 Oct 02 08:26:38 5010 13305 A -0.9225 0.9765 65.0S 31.2E 22 219 01m44s
 ----- 14 3093 Oct 12 15:52:48 5155 13528 A -0.9778 0.9678 73.6S 116.7W 11 592 02m06s
 ----- 15 3111 Oct 24 23:23:27 5303 13751 P -1.0286 0.9241 71.4S 79.6E 0
 ----- 16 3129 Nov 04 07:02:38 5452 13974 P -1.0714 0.8469 70.6S 47.7W 0
 ----- 17 3147 Nov 15 14:47:14 5604 14197 P -1.1090 0.7797 69.7S 175.6W 0
 ----- 18 3165 Nov 25 22:39:30 5758 14420 P -1.1396 0.7254 68.7S 55.1E 0
 ----- 19 3183 Dec 07 06:36:48 5913 14643 P -1.1654 0.6801 67.6S 74.8W 0
 ----- 20 3201 Dec 17 14:40:49 6071 14866 P -1.1852 0.6456 66.5S 154.2E 0
 ----- 21 3219 Dec 28 22:48:15 6231 15089 P -1.2013 0.6176 65.4S 22.8E 0
 ----- 22 3238 Jan 08 06:58:53 6393 15312 P -1.2143 0.5952 64.4S 109.0W 0
 ----- 23 3256 Jan 19 15:10:37 6557 15535 P -1.2257 0.5757 63.5S 119.3E 0
 ----- 24 3274 Jan 29 23:23:20 6723 15758 P -1.2361 0.5580 62.8S 12.3W 0
 ----- 25 3292 Feb 10 07:33:12 6892 15981 P -1.2482 0.5377 62.1S 143.0W 0
 ----- 26 3310 Feb 21 15:40:24 7062 16204 P -1.2618 0.5147 61.6S 87.2E 0
 ----- 27 3328 Mar 03 23:42:09 7234 16427 P -1.2795 0.4849 61.3S 41.2W 0
 ----- 28 3346 Mar 15 07:39:13 7409 16650 P -1.3006 0.4495 61.1S 168.3W 0
 ----- 29 3364 Mar 25 15:26:47 7585 16873 P -1.3287 0.4019 61.1S 66.9E 0

----- 30 3382 Apr 05 23:07:52 7764 17096 P -1.3616 0.3464 61.3S 56.2W 0

----- 31 3400 Apr 17 06:38:31 7944 17319 P -1.4020 0.2777 61.7S 176.8W 0

----- 32 3418 Apr 28 14:01:32 8127 17542 P -1.4481 0.1994 62.2S 64.4E 0

----- 33 3436 May 08 21:13:13 8312 17765 P -1.5026 0.1065 62.8S 51.7W 0

----- 34 3454 May 20 04:17:52 8499 17988 Pe -1.5619 0.0051 63.5S 166.3W 0

SAROS SERIES

162

Saros series 162 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													
10107	-34	2257 Apr 15	12:05:15	591	3182	Pb	-1.5121	0.0633	71.3S	60.1E	0		
10152	-33	2275 Apr 26	19:41:41	642	3405	P	-1.4684	0.1423	70.7S	67.0W	0		
10198	-32	2293 May 07	03:09:47	696	3628	P	-1.4186	0.2323	69.9S	168.5E	0		
10243	-31	2311 May 19	10:28:46	751	3851	P	-1.3621	0.3345	69.0S	46.9E	0		
10288	-30	2329 May 29	17:41:09	809	4074	P	-1.3009	0.4449	68.1S	72.5W	0		

10334 -29 2347 Jun 10 00:44:42 868 4297 P -1.2329 0.5670 67.1S 170.8E 0
 10379 -28 2365 Jun 20 07:44:13 930 4520 P -1.1623 0.6935 66.1S 55.7E 0
 10423 -27 2383 Jul 01 14:37:42 994 4743 P -1.0870 0.8276 65.1S 57.5W 0
 10467 -26 2401 Jul 11 21:29:20 1060 4966 P -1.0111 0.9620 64.2S 169.9W 0
 10510 -25 2419 Jul 23 04:16:45 1128 5189 A -0.9322 0.9753 45.6S 98.2E 21 242 02m17s
 10553 -24 2437 Aug 02 11:06:01 1198 5412 A -0.8553 0.9741 37.4S 2.8W 31 175 02m33s
 10596 -23 2455 Aug 13 17:54:37 1270 5635 A -0.7781 0.9716 32.3S 104.2W 39 158 02m52s
 10638 -22 2473 Aug 24 00:46:32 1344 5858 A -0.7043 0.9684 29.3S 153.6E 45 156 03m12s
 10680 -21 2491 Sep 04 07:41:15 1420 6081 A -0.6332 0.9646 27.7S 50.9E 51 161 03m34s
 10722 -20 2509 Sep 15 14:42:15 1498 6304 A -0.5679 0.9604 27.3S 53.4W 55 171 03m58s
 10763 -19 2527 Sep 26 21:48:45 1579 6527 A -0.5074 0.9559 27.9S 158.9W 59 183 04m25s
 10804 -18 2545 Oct 07 05:01:15 1661 6750 A -0.4523 0.9514 29.1S 94.4E 63 197 04m54s
 10844 -17 2563 Oct 18 12:21:39 1746 6973 A -0.4042 0.9467 30.7S 14.2W 66 213 05m26s
 10884 -16 2581 Oct 28 19:49:23 1832 7196 A -0.3627 0.9422 32.6S 124.3W 69 228 06m00s
 10925 -15 2599 Nov 09 03:25:06 1921 7419 A -0.3282 0.9379 34.5S 123.9E 71 244 06m35s
 10966 -14 2617 Nov 20 11:07:13 2012 7642 A -0.2995 0.9339 36.2S 11.0E 72 258 07m11s
 11007 -13 2635 Dec 01 18:56:55 2104 7865 A -0.2774 0.9302 37.4S 103.5W 74 272 07m47s
 11046 -12 2653 Dec 12 02:51:33 2199 8088 A -0.2599 0.9271 38.0S 141.1E 75 284 08m21s
 11087 -11 2671 Dec 23 10:50:32 2296 8311 A -0.2466 0.9246 37.8S 24.7E 76 294 08m52s
 11128 -10 2690 Jan 02 18:52:25 2395 8534 A -0.2360 0.9226 36.6S 92.6W 76 301 09m17s
 11170 -09 2708 Jan 15 02:56:17 2496 8757 A -0.2277 0.9212 34.6S 149.2E 77 306 09m38s
 11212 -08 2726 Jan 25 10:59:24 2599 8980 A -0.2189 0.9206 31.7S 30.7E 77 308 09m52s
 11255 -07 2744 Feb 05 19:00:30 2705 9203 A -0.2086 0.9205 28.0S 88.1W 78 308 10m01s
 11300 -06 2762 Feb 16 02:58:17 2812 9426 A -0.1959 0.9211 23.6S 153.3E 79 304 10m04s
 11345 -05 2780 Feb 27 10:51:54 2921 9649 A -0.1801 0.9221 18.6S 35.1E 80 299 10m03s
 11390 -04 2798 Mar 09 18:37:54 3033 9872 A -0.1580 0.9238 13.1S 81.7W 81 291 09m57s
 11435 -03 2816 Mar 20 02:17:34 3146 10095 A -0.1307 0.9259 7.2S 162.7E 82 281 09m48s
 11480 -02 2834 Mar 31 09:48:16 3262 10318 A -0.0959 0.9284 1.0S 49.1E 84 270 09m32s

11526 -01 2852 Apr 10 17:12:01 3379 10541 A -0.0555 0.9310 5.4N 62.8W 87 258 09m13s
 11572 00 2870 Apr 22 00:24:56 3499 10764 A -0.0061 0.9340 12.0N 171.8W 90 246 08m47s
 11619 01 2888 May 02 07:31:10 3621 10987 Am 0.0488 0.9369 18.6N 81.1E 87 235 08m17s
 11666 02 2906 May 14 14:27:44 3745 11210 A 0.1121 0.9398 25.2N 23.0W 83 225 07m41s
 11711 03 2924 May 24 21:17:54 3871 11433 A 0.1805 0.9426 31.5N 124.7W 79 216 07m02s
 11756 04 2942 Jun 05 04:00:12 3999 11656 A 0.2556 0.9452 37.5N 136.5E 75 209 06m22s
 11800 05 2960 Jun 15 10:38:45 4129 11879 A 0.3340 0.9474 42.9N 40.0E 70 205 05m45s
 11844 06 2978 Jun 26 17:12:36 4261 12102 A 0.4165 0.9493 47.7N 53.9W 65 205 05m12s
 11889 07 2996 Jul 06 23:44:03 4395 12325 A 0.5013 0.9508 51.6N 145.6W 60 208 04m44s
 ----- 08 3014 Jul 19 06:14:29 4532 12548 A 0.5872 0.9517 54.5N 124.3E 54 218 04m23s
 ----- 09 3032 Jul 29 12:45:47 4670 12771 A 0.6728 0.9522 56.5N 35.2E 47 235 04m07s
 ----- 10 3050 Aug 09 19:19:09 4811 12994 A 0.7568 0.9520 57.8N 53.6W 41 266 03m57s
 ----- 11 3068 Aug 20 01:55:43 4953 13217 A 0.8386 0.9512 58.7N 142.5W 33 324 03m50s
 ----- 12 3086 Aug 31 08:38:06 5098 13440 A 0.9162 0.9495 59.8N 129.3E 23 457 03m47s
 ----- 13 3104 Sep 11 15:26:43 5244 13663 An 0.9893 0.9456 61.6N 52.2E 7 - 03m44s
 ----- 14 3122 Sep 22 22:22:21 5393 13886 P 1.0569 0.8692 61.1N 44.6W 0
 ----- 15 3140 Oct 03 05:26:49 5544 14109 P 1.1177 0.7639 61.2N 158.7W 0
 ----- 16 3158 Oct 14 12:40:14 5697 14332 P 1.1716 0.6708 61.4N 84.9E 0
 ----- 17 3176 Oct 24 20:03:48 5852 14555 P 1.2180 0.5907 61.9N 34.1W 0
 ----- 18 3194 Nov 05 03:35:16 6009 14778 P 1.2585 0.5206 62.4N 155.2W 0
 ----- 19 3212 Nov 15 11:17:54 6168 15001 P 1.2904 0.4655 63.1N 80.7E 0
 ----- 20 3230 Nov 26 19:08:34 6329 15224 P 1.3162 0.4210 63.9N 45.5W 0
 ----- 21 3248 Dec 07 03:08:54 6492 15447 P 1.3349 0.3887 64.8N 174.5W 0
 ----- 22 3266 Dec 18 11:15:18 6658 15670 P 1.3492 0.3639 65.8N 54.7E 0
 ----- 23 3284 Dec 28 19:29:42 6825 15893 P 1.3578 0.3487 66.9N 78.6W 0
 ----- 24 3303 Jan 10 03:47:54 6994 16116 P 1.3640 0.3377 67.9N 146.7E 0
 ----- 25 3321 Jan 20 12:10:10 7166 16339 P 1.3674 0.3314 69.0N 10.4E 0
 ----- 26 3339 Jan 31 20:33:45 7340 16562 P 1.3705 0.3255 69.9N 126.8W 0

-----	27	3357	Feb 11	04:58:24	7515	16785	P	1.3732	0.3201	70.8N	95.0E	0
-----	28	3375	Feb 22	13:20:49	7693	17008	P	1.3785	0.3101	71.5N	43.2W	0
-----	29	3393	Mar 04	21:40:44	7873	17231	P	1.3865	0.2951	72.0N	178.8E	0
-----	30	3411	Mar 17	05:56:23	8055	17454	P	1.3984	0.2729	72.2N	41.4E	0
-----	31	3429	Mar 27	14:07:42	8239	17677	P	1.4144	0.2433	72.1N	94.9W	0
-----	32	3447	Apr 07	22:11:35	8425	17900	P	1.4369	0.2015	71.8N	130.9E	0
-----	33	3465	Apr 18	06:10:09	8613	18123	P	1.4644	0.1504	71.3N	1.6W	0
-----	34	3483	Apr 29	14:01:00	8803	18346	P	1.4987	0.0863	70.6N	131.6W	0
-----	35	3501	May 10	21:46:54	8995	18569	Pe	1.5374	0.0133	69.8N	100.3E	0

SAROS SERIES

163

Saros series 163 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

10180 -33 2286 Mar 25 20:37:48 674 3540 Pb 1.5392 0.0472 61.0N 141.1E 0

10225	-32	2304	Apr 06	04:00:21	729	3763	P	1.4957	0.1189	61.2N	22.1E	0
10270	-31	2322	Apr 17	11:14:23	786	3986	P	1.4446	0.2041	61.5N	94.9W	0
10315	-30	2340	Apr 27	18:21:32	844	4209	P	1.3873	0.3005	62.0N	149.8E	0
10361	-29	2358	May 09	01:21:14	905	4432	P	1.3231	0.4097	62.6N	36.2E	0
10405	-28	2376	May 19	08:14:44	968	4655	P	1.2528	0.5304	63.3N	76.1W	0
10449	-27	2394	May 30	15:03:03	1033	4878	P	1.1775	0.6609	64.1N	172.7E	0
10493	-26	2412	Jun 09	21:48:04	1100	5101	P	1.0988	0.7983	65.0N	62.1E	0
10536	-25	2430	Jun 21	04:29:26	1170	5324	P	1.0160	0.9438	66.0N	48.0W	0
10579	-24	2448	Jul 01	11:10:16	1241	5547	A	0.9316	0.9620	87.6N	135.3W	21 389 02m26s
10622	-23	2466	Jul 12	17:50:51	1314	5770	A	0.8461	0.9676	79.5N	65.8W	32 221 02m18s
10664	-22	2484	Jul 23	00:34:35	1390	5993	A	0.7619	0.9720	68.9N	166.0W	40 156 02m10s
10706	-21	2502	Aug 04	07:19:53	1467	6216	A	0.6779	0.9756	58.9N	91.6E	47 119 02m03s
10747	-20	2520	Aug 14	14:11:41	1547	6439	A	0.5984	0.9784	49.7N	12.9W	53 96 01m57s
10788	-19	2538	Aug 25	21:08:14	1628	6662	A	0.5217	0.9806	40.7N	119.1W	58 81 01m52s
10828	-18	2556	Sep 05	04:13:26	1712	6885	A	0.4511	0.9823	32.2N	132.5E	63 70 01m48s
10868	-17	2574	Sep 16	11:25:01	1798	7108	A	0.3848	0.9835	24.0N	22.4E	67 63 01m45s
10908	-16	2592	Sep 26	18:47:01	1886	7331	A	0.3261	0.9844	16.4N	90.2W	71 58 01m42s
10950	-15	2610	Oct 09	02:17:27	1975	7554	A	0.2737	0.9849	9.2N	155.4E	74 55 01m41s
10991	-14	2628	Oct 19	09:57:24	2067	7777	A	0.2284	0.9854	2.7N	39.0E	77 53 01m39s
11031	-13	2646	Oct 30	17:46:59	2161	8000	A	0.1902	0.9857	3.2S	79.4W	79 51 01m38s
11071	-12	2664	Nov 10	01:46:10	2258	8223	A	0.1591	0.9861	8.2S	160.4E	81 50 01m36s
11112	-11	2682	Nov 21	09:54:31	2356	8446	A	0.1351	0.9866	12.2S	38.4E	82 48 01m32s
11154	-10	2700	Dec 02	18:09:37	2456	8669	A	0.1159	0.9874	15.3S	84.8W	83 45 01m26s
11196	-09	2718	Dec 14	02:32:46	2558	8892	A	0.1027	0.9885	17.3S	150.5E	84 41 01m17s
11238	-08	2736	Dec 24	11:00:57	2663	9115	A	0.0927	0.9900	18.2S	24.7E	85 35 01m06s
11281	-07	2755	Jan 04	19:33:47	2769	9338	A	0.0860	0.9920	17.9S	102.2W	85 28 00m52s
11326	-06	2773	Jan 15	04:08:33	2878	9561	A	0.0801	0.9945	16.8S	130.4E	86 19 00m35s
11372	-05	2791	Jan 26	12:45:16	2988	9784	A	0.0751	0.9975	14.8S	2.3E	86 9 00m15s

11417	-04	2809	Feb 05	21:20:58	3101	10007	H	0.0684	1.0011	12.1S	125.8W	86	4	00m06s
11462	-03	2827	Feb 17	05:54:44	3216	10230	H	0.0594	1.0052	9.0S	106.3E	87	18	00m30s
11508	-02	2845	Feb 27	14:25:03	3333	10453	H	0.0467	1.0098	5.7S	20.8W	87	34	00m55s
11554	-01	2863	Mar 10	22:51:08	3452	10676	H	0.0299	1.0147	2.3S	146.9W	88	50	01m21s
11600	00	2881	Mar 21	07:10:48	3573	10899	T	0.0071	1.0201	0.9N	88.6E	90	68	01m49s
11647	01	2899	Apr 01	15:24:34	3696	11122	T	-0.0212	1.0255	3.8N	34.3W	89	87	02m17s
11693	02	2917	Apr 12	23:31:15	3821	11345	T	-0.0560	1.0312	6.2N	155.2W	87	106	02m48s
11738	03	2935	Apr 24	07:32:14	3948	11568	Tm	-0.0964	1.0368	7.9N	85.5E	85	124	03m20s
11782	04	2953	May 04	15:24:35	4077	11791	T	-0.1443	1.0424	8.6N	31.5W	82	143	03m54s
11826	05	2971	May 15	23:12:11	4209	12014	T	-0.1967	1.0476	8.4N	147.3W	79	161	04m27s
11870	06	2989	May 26	06:52:44	4342	12237	T	-0.2555	1.0525	7.0N	98.6E	75	179	05m00s
-----	07	3007	Jun 07	14:29:56	4478	12460	T	-0.3177	1.0568	4.5N	15.0W	72	197	05m30s
-----	08	3025	Jun 17	22:01:13	4615	12683	T	-0.3855	1.0606	0.8N	127.6W	67	216	05m56s
-----	09	3043	Jun 29	05:31:36	4755	12906	T	-0.4545	1.0636	4.0S	119.4E	63	234	06m13s
-----	10	3061	Jul 09	12:58:57	4897	13129	T	-0.5262	1.0659	9.7S	6.5E	58	253	06m20s
-----	11	3079	Jul 20	20:26:23	5040	13352	T	-0.5984	1.0673	16.4S	107.2W	53	274	06m16s
-----	12	3097	Jul 31	03:53:09	5186	13575	T	-0.6716	1.0678	23.9S	138.5E	48	298	06m02s
-----	13	3115	Aug 12	11:22:49	5334	13798	T	-0.7426	1.0674	32.2S	22.4E	42	327	05m38s
-----	14	3133	Aug 22	18:54:45	5484	14021	T	-0.8120	1.0661	41.2S	95.7W	35	368	05m07s
-----	15	3151	Sep 03	02:30:19	5636	14244	T	-0.8784	1.0637	50.9S	142.9E	28	435	04m30s
-----	16	3169	Sep 13	10:10:50	5790	14467	T	-0.9408	1.0600	61.6S	14.5E	19	588	03m49s
-----	17	3187	Sep 24	17:57:12	5947	14690	T-	-0.9984	1.0234	72.2S	158.4W	0		
-----	18	3205	Oct 05	01:49:54	6105	14913	P	-1.0510	0.9212	72.1S	69.9E	0		
-----	19	3223	Oct 16	09:48:58	6265	15136	P	-1.0983	0.8295	71.7S	63.0W	0		
-----	20	3241	Oct 26	17:55:44	6428	15359	P	-1.1394	0.7500	71.1S	162.5E	0		
-----	21	3259	Nov 07	02:10:00	6592	15582	P	-1.1745	0.6826	70.3S	26.8E	0		
-----	22	3277	Nov 17	10:30:51	6759	15805	P	-1.2043	0.6253	69.3S	110.0W	0		
-----	23	3295	Nov 28	18:59:32	6927	16028	P	-1.2281	0.5799	68.3S	111.9E	0		

-----	24	3313	Dec 10	03:34:32	7098	16251	P	-1.2471	0.5437	67.3S	27.3W	0
-----	25	3331	Dec 21	12:15:55	7271	16474	P	-1.2610	0.5174	66.2S	167.5W	0
-----	26	3349	Dec 31	21:00:17	7446	16697	P	-1.2728	0.4953	65.2S	52.1E	0
-----	27	3368	Jan 12	05:49:25	7623	16920	P	-1.2809	0.4802	64.3S	89.2W	0
-----	28	3386	Jan 22	14:39:48	7802	17143	P	-1.2885	0.4660	63.4S	129.5E	0
-----	29	3404	Feb 03	23:31:04	7983	17366	P	-1.2954	0.4531	62.7S	11.7W	0
-----	30	3422	Feb 14	08:20:23	8166	17589	P	-1.3040	0.4370	62.1S	152.2W	0
-----	31	3440	Feb 25	17:07:57	8351	17812	P	-1.3140	0.4182	61.6S	67.9E	0
-----	32	3458	Mar 08	01:51:07	8538	18035	P	-1.3276	0.3926	61.4S	70.8W	0
-----	33	3476	Mar 18	10:28:45	8728	18258	P	-1.3457	0.3586	61.3S	152.0E	0
-----	34	3494	Mar 29	19:00:19	8919	18481	P	-1.3687	0.3152	61.3S	16.2E	0
-----	35	3512	Apr 10	03:24:55	9113	18704	P	-1.3969	0.2618	61.6S	117.8W	0
-----	36	3530	Apr 21	11:41:23	9308	18927	P	-1.4317	0.1959	61.9S	110.1E	0
-----	37	3548	May 01	19:49:58	9506	19150	P	-1.4726	0.1185	62.5S	20.1W	0
-----	38	3566	May 13	03:50:29	9706	19373	Pe	-1.5196	0.0294	63.1S	148.5W	0

SAROS SERIES

164

Saros series 164 contains 80 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

09730	-46	2098 Oct 24	10:36:11	200	1222	Pb	-1.5407	0.0056	61.8S	95.5W	0		
09771	-45	2116 Nov 04	18:50:09	243	1445	P	-1.5103	0.0613	62.3S	132.3E	0		
09812	-44	2134 Nov 16	03:12:08	288	1668	P	-1.4857	0.1060	63.0S	2.1W	0		
09854	-43	2152 Nov 26	11:41:08	334	1891	P	-1.4665	0.1409	63.8S	138.4W	0		
09896	-42	2170 Dec 07	20:17:08	373	2114	P	-1.4530	0.1653	64.7S	83.1E	0		
09940	-41	2188 Dec 18	04:56:59	415	2337	P	-1.4420	0.1850	65.7S	56.6W	0		
09985	-40	2206 Dec 30	13:40:30	458	2560	P	-1.4337	0.1997	66.8S	162.3E	0		
10028	-39	2225 Jan 09	22:25:24	504	2783	P	-1.4263	0.2125	67.8S	20.4E	0		
10072	-38	2243 Jan 21	07:11:45	552	3006	P	-1.4198	0.2238	68.9S	122.5W	0		
10117	-37	2261 Jan 31	15:55:00	601	3229	P	-1.4107	0.2397	69.9S	94.8E	0		
10162	-36	2279 Feb 12	00:37:06	653	3452	P	-1.4003	0.2581	70.7S	48.3W	0		
10208	-35	2297 Feb 22	09:13:31	707	3675	P	-1.3851	0.2853	71.4S	169.4E	0		
10253	-34	2315 Mar 06	17:46:20	763	3898	P	-1.3668	0.3187	71.9S	27.6E	0		
10298	-33	2333 Mar 17	02:10:53	821	4121	P	-1.3417	0.3651	72.1S	112.5W	0		
10344	-32	2351 Mar 28	10:30:57	881	4344	P	-1.3126	0.4195	72.1S	108.5E	0		
10389	-31	2369 Apr 07	18:42:11	943	4567	P	-1.2763	0.4880	71.8S	28.1W	0		
10433	-30	2387 Apr 19	02:47:06	1007	4790	P	-1.2345	0.5677	71.3S	162.7W	0		
10477	-29	2405 Apr 29	10:43:55	1074	5013	P	-1.1858	0.6613	70.6S	65.3E	0		
10520	-28	2423 May 10	18:35:17	1142	5236	P	-1.1323	0.7647	69.7S	64.8W	0		
10563	-27	2441 May 21	02:20:11	1213	5459	P	-1.0733	0.8795	68.8S	167.3E	0		
10606	-26	2459 Jun 01	09:59:50	1285	5682	T-	-1.0097	1.0038	67.8S	41.3E	0		
10648	-25	2477 Jun 11	17:35:29	1360	5905	T	-0.9423	1.0647	47.8S	80.8W	19	642	04m53s

10690	-24	2495	Jun 23	01:08:06	1436	6128	T	-0.8718	1.0696	37.2S	162.6E	29	464	05m39s
10732	-23	2513	Jul 04	08:38:16	1515	6351	T	-0.7992	1.0729	29.6S	48.0E	37	392	06m09s
10772	-22	2531	Jul 15	16:07:33	1596	6574	T	-0.7256	1.0750	23.8S	65.5W	43	351	06m25s
10812	-21	2549	Jul 25	23:37:26	1679	6797	T	-0.6522	1.0761	19.5S	178.5W	49	322	06m30s
10852	-20	2567	Aug 06	07:09:09	1764	7020	T	-0.5802	1.0762	16.5S	68.5E	54	299	06m26s
10892	-19	2585	Aug 16	14:42:33	1851	7243	T	-0.5094	1.0753	14.7S	44.5W	59	281	06m16s
10933	-18	2603	Aug 28	22:20:26	1940	7466	T	-0.4425	1.0737	13.9S	158.4W	64	264	06m02s
10974	-17	2621	Sep 08	06:02:19	2031	7689	T	-0.3793	1.0713	14.1S	86.8E	68	249	05m45s
11015	-16	2639	Sep 19	13:50:24	2124	7912	T	-0.3212	1.0683	15.0S	29.4W	71	234	05m28s
11055	-15	2657	Sep 29	21:43:07	2219	8135	T	-0.2675	1.0647	16.4S	146.6W	74	219	05m11s
11096	-14	2675	Oct 11	05:43:47	2317	8358	T	-0.2206	1.0608	18.3S	94.2E	77	204	04m54s
11138	-13	2693	Oct 21	13:50:36	2416	8581	T	-0.1793	1.0566	20.3S	26.3W	80	189	04m37s
11180	-12	2711	Nov 02	22:05:02	2518	8804	T	-0.1448	1.0523	22.3S	148.6W	82	175	04m21s
11222	-11	2729	Nov 13	06:26:10	2621	9027	T	-0.1162	1.0480	24.1S	87.7E	83	161	04m05s
11265	-10	2747	Nov 24	14:54:29	2727	9250	T	-0.0940	1.0438	25.7S	37.6W	84	147	03m49s
11310	-09	2765	Dec 04	23:28:46	2835	9473	T	-0.0771	1.0398	26.7S	164.2W	85	134	03m33s
11354	-08	2783	Dec 16	08:07:08	2945	9696	T	-0.0640	1.0362	27.0S	68.3E	86	122	03m18s
11399	-07	2801	Dec 26	16:50:37	3056	9919	T	-0.0555	1.0328	26.6S	60.4W	87	111	03m04s
11444	-06	2820	Jan 07	01:36:11	3170	10142	Tm	-0.0495	1.0300	25.4S	170.2E	87	102	02m51s
11489	-05	2838	Jan 17	10:23:36	3286	10365	T	-0.0450	1.0277	23.3S	40.1E	87	94	02m39s
11535	-04	2856	Jan 28	19:09:09	3405	10588	T	-0.0395	1.0258	20.4S	89.9W	88	88	02m30s
11582	-03	2874	Feb 08	03:54:12	3525	10811	T	-0.0340	1.0244	16.9S	139.7E	88	83	02m23s
11629	-02	2892	Feb 19	12:34:51	3647	11034	T	-0.0255	1.0234	12.6S	9.9E	88	80	02m18s
11676	-01	2910	Mar 02	21:10:45	3771	11257	T	-0.0136	1.0228	7.9S	119.0W	89	78	02m15s
11721	00	2928	Mar 13	05:39:54	3898	11480	T	0.0034	1.0225	2.6S	113.3E	90	77	02m13s
11765	01	2946	Mar 24	14:02:24	4026	11703	T	0.0255	1.0224	3.0N	12.9W	89	76	02m13s
11809	02	2964	Apr 03	22:16:19	4157	11926	T	0.0540	1.0224	8.9N	137.0W	87	76	02m13s
11853	03	2982	Apr 15	06:21:40	4289	12149	T	0.0890	1.0223	14.9N	101.1E	85	76	02m12s

11897 04 3000 Apr 26 14:18:06 4424 12372 T 0.1310 1.0222 21.1N 18.4W 82 76 02m11s

----- 05 3018 May 07 22:06:17 4561 12595 T 0.1791 1.0218 27.2N 135.3W 80 75 02m06s

----- 06 3036 May 18 05:44:37 4700 12818 T 0.2350 1.0211 33.3N 110.9E 76 74 02m00s

----- 07 3054 May 29 13:15:59 4840 13041 T 0.2960 1.0199 39.0N 0.2W 73 71 01m50s

----- 08 3072 Jun 08 20:38:54 4983 13264 T 0.3636 1.0183 44.4N 108.0W 68 67 01m37s

----- 09 3090 Jun 20 03:56:54 5128 13487 T 0.4343 1.0161 49.1N 146.9E 64 61 01m22s

----- 10 3108 Jul 01 11:07:05 5276 13710 H 0.5108 1.0132 53.2N 45.4E 59 53 01m05s

----- 11 3126 Jul 12 18:14:52 5425 13933 H 0.5885 1.0097 56.3N 53.9W 54 41 00m45s

----- 12 3144 Jul 23 01:17:26 5576 14156 H 0.6698 1.0054 58.5N 150.3W 48 25 00m24s

----- 13 3162 Aug 03 08:19:34 5729 14379 H 0.7502 1.0004 59.8N 114.4E 41 2 00m02s

----- 14 3180 Aug 13 15:19:01 5885 14602 A 0.8318 0.9946 60.7N 21.0E 33 34 00m23s

----- 15 3198 Aug 24 22:21:10 6042 14825 A 0.9101 0.9878 61.5N 70.9W 24 103 00m50s

----- 16 3216 Sep 04 05:23:49 6202 15048 A 0.9868 0.9786 62.3N 150.2W 8 513 01m21s

----- 17 3234 Sep 15 12:30:20 6363 15271 P 1.0594 0.8754 61.1N 112.6E 0

----- 18 3252 Sep 25 19:40:20 6527 15494 P 1.1278 0.7523 61.1N 2.8W 0

----- 19 3270 Oct 07 02:56:27 6693 15717 P 1.1901 0.6414 61.3N 119.8W 0

----- 20 3288 Oct 17 10:18:17 6861 15940 P 1.2470 0.5412 61.6N 121.7E 0

----- 21 3306 Oct 29 17:46:27 7030 16163 P 1.2977 0.4527 62.0N 1.6E 0

----- 22 3324 Nov 09 01:21:55 7202 16386 P 1.3417 0.3768 62.6N 120.4W 0

----- 23 3342 Nov 20 09:04:29 7376 16609 P 1.3791 0.3131 63.4N 115.5E 0

----- 24 3360 Nov 30 16:53:43 7553 16832 P 1.4103 0.2606 64.2N 10.4W 0

----- 25 3378 Dec 12 00:49:28 7731 17055 P 1.4355 0.2188 65.2N 138.2W 0

----- 26 3396 Dec 22 08:50:22 7911 17278 P 1.4560 0.1852 66.2N 92.3E 0

----- 27 3415 Jan 03 16:55:57 8093 17501 P 1.4720 0.1592 67.3N 38.9W 0

----- 28 3433 Jan 14 01:03:03 8278 17724 P 1.4861 0.1364 68.4N 170.9W 0

----- 29 3451 Jan 25 09:12:47 8464 17947 P 1.4973 0.1183 69.4N 55.8E 0

----- 30 3469 Feb 04 17:21:26 8653 18170 P 1.5084 0.1004 70.4N 77.9W 0

----- 31 3487 Feb 16 01:28:50 8843 18393 P 1.5202 0.0810 71.2N 148.0E 0

----- 32 3505 Feb 27 09:31:19 9036 18616 P 1.5352 0.0559 71.8N 14.6E 0
----- 33 3523 Mar 10 17:29:59 9231 18839 Pe 1.5527 0.0265 72.2N 118.4W 0

SAROS SERIES

165

Saros series 165 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
09837	-39	2145 Oct 16 09:11:28	317	1803	Pb	1.5190	0.0359	71.4N	101.7E	0			
09879	-38	2163 Oct 27 17:20:52	358	2026	P	1.4919	0.0888	70.8N	33.9W	0			
09923	-37	2181 Nov 07 01:38:23	398	2249	P	1.4718	0.1280	70.0N	170.9W	0			
09967	-36	2199 Nov 18 10:01:01	441	2472	P	1.4564	0.1583	69.1N	51.4E	0			
10011	-35	2217 Nov 29 18:29:51	486	2695	P	1.4464	0.1782	68.1N	87.3W	0			
10055	-34	2235 Dec 11 03:02:34	533	2918	P	1.4400	0.1913	67.1N	133.6E	0			
10099	-33	2253 Dec 21 11:39:39	582	3141	P	1.4374	0.1972	66.1N	6.0W	0			
10144	-32	2272 Jan 01 20:17:51	632	3364	P	1.4365	0.2000	65.1N	145.4W	0			

10190	-31	2290	Jan 12	04:56:33	686	3587	P	1.4365	0.2009	64.1N	75.4E	0
10235	-30	2308	Jan 24	13:33:40	741	3810	P	1.4358	0.2029	63.3N	63.0W	0
10280	-29	2326	Feb 03	22:08:49	798	4033	P	1.4340	0.2068	62.6N	159.3E	0
10325	-28	2344	Feb 15	06:37:58	857	4256	P	1.4280	0.2178	62.0N	23.3E	0
10371	-27	2362	Feb 25	15:02:03	918	4479	P	1.4190	0.2344	61.6N	111.3W	0
10415	-26	2380	Mar 07	23:17:52	982	4702	P	1.4039	0.2615	61.3N	116.3E	0
10459	-25	2398	Mar 19	07:27:08	1047	4925	P	1.3844	0.2965	61.2N	14.4W	0
10502	-24	2416	Mar 29	15:24:54	1115	5148	P	1.3563	0.3466	61.2N	142.2W	0
10545	-23	2434	Apr 09	23:15:24	1184	5371	P	1.3232	0.4058	61.4N	91.7E	0
10588	-22	2452	Apr 20	06:54:27	1256	5594	P	1.2819	0.4797	61.8N	31.5W	0
10630	-21	2470	May 01	14:25:40	1330	5817	P	1.2347	0.5638	62.3N	152.9W	0
10673	-20	2488	May 11	21:45:56	1406	6040	P	1.1793	0.6626	62.9N	88.3E	0
10715	-19	2506	May 24	04:59:35	1484	6263	P	1.1192	0.7695	63.7N	29.1W	0
10756	-18	2524	Jun 03	12:04:40	1564	6486	P	1.0528	0.8873	64.5N	144.5W	0
10797	-17	2542	Jun 14	19:03:09	1646	6709	A	0.9815	0.9737	74.8N	113.4E	10 540 01m30s
10837	-16	2560	Jun 25	01:55:50	1730	6932	A	0.9063	0.9754	86.4N	91.3E	25 211 01m35s
10877	-15	2578	Jul 06	08:44:44	1816	7155	A	0.8285	0.9753	78.8N	61.1E	34 159 01m45s
10917	-14	2596	Jul 16	15:30:49	1904	7378	A	0.7487	0.9741	69.4N	32.6W	41 141 02m00s
10958	-13	2614	Jul 28	22:14:49	1995	7601	A	0.6680	0.9721	60.2N	132.0W	48 135 02m21s
10999	-12	2632	Aug 08	04:59:27	2087	7824	A	0.5886	0.9695	51.2N	126.5E	54 136 02m49s
11039	-11	2650	Aug 19	11:45:23	2182	8047	A	0.5110	0.9663	42.4N	23.7E	59 141 03m21s
11080	-10	2668	Aug 29	18:33:48	2278	8270	A	0.4360	0.9627	33.7N	80.2W	64 149 03m59s
11121	-09	2686	Sep 10	01:25:58	2377	8493	A	0.3646	0.9587	25.3N	174.7E	68 160 04m41s
11163	-08	2704	Sep 21	08:23:52	2477	8716	A	0.2985	0.9545	17.3N	68.2E	73 173 05m26s
11205	-07	2722	Oct 02	15:28:06	2580	8939	A	0.2384	0.9501	9.7N	39.7W	76 188 06m12s
11248	-06	2740	Oct 12	22:38:24	2685	9162	A	0.1837	0.9456	2.5N	148.8W	79 204 06m59s
11291	-05	2758	Oct 24	05:56:58	2792	9385	A	0.1364	0.9412	4.0S	100.4E	82 220 07m44s
11336	-04	2776	Nov 03	13:23:19	2901	9608	A	0.0956	0.9369	9.9S	11.8W	85 236 08m25s

11381 -03 2794 Nov 14 20:57:54 3012 9831 Am 0.0620 0.9329 14.8S 125.4W 87 251 09m02s
 11426 -02 2812 Nov 25 04:39:02 3125 10054 A 0.0341 0.9292 18.9S 120.0E 88 266 09m33s
 11471 -01 2830 Dec 06 12:27:18 3240 10277 A 0.0124 0.9261 21.8S 4.1E 89 278 09m57s
 11517 00 2848 Dec 16 20:21:20 3358 10500 A -0.0045 0.9233 23.7S 112.7W 90 289 10m13s
 11563 01 2866 Dec 28 04:18:59 3477 10723 A -0.0184 0.9213 24.4S 129.9E 89 298 10m19s
 11610 02 2885 Jan 07 12:20:24 3598 10946 A -0.0289 0.9197 23.9S 11.5E 88 304 10m20s
 11657 03 2903 Jan 19 20:22:19 3722 11169 A -0.0391 0.9189 22.6S 107.2W 88 308 10m12s
 11703 04 2921 Jan 30 04:24:58 3848 11392 A -0.0482 0.9187 20.3S 133.7E 87 309 10m01s
 11748 05 2939 Feb 10 12:23:38 3975 11615 A -0.0607 0.9191 17.6S 15.2E 86 307 09m45s
 11792 06 2957 Feb 20 20:20:31 4105 11838 A -0.0746 0.9201 14.5S 103.0W 86 303 09m28s
 11836 07 2975 Mar 04 04:11:02 4237 12061 A -0.0939 0.9217 11.3S 140.1E 85 297 09m10s
 11880 08 2993 Mar 14 11:55:59 4371 12284 A -0.1176 0.9238 8.1S 24.5E 83 289 08m53s
 ----- 09 3011 Mar 26 19:32:21 4506 12507 A -0.1483 0.9262 5.4S 88.9W 81 280 08m37s
 ----- 10 3029 Apr 06 03:02:13 4644 12730 A -0.1845 0.9290 3.0S 159.4E 79 270 08m23s
 ----- 11 3047 Apr 17 10:23:15 4785 12953 A -0.2282 0.9320 1.4S 50.0E 77 260 08m10s
 ----- 12 3065 Apr 27 17:35:46 4927 13176 A -0.2791 0.9352 0.7S 57.2W 74 250 08m00s
 ----- 13 3083 May 09 00:40:11 5071 13399 A -0.3368 0.9383 1.1S 162.4W 70 242 07m50s
 ----- 14 3101 May 20 07:37:31 5217 13622 A -0.4003 0.9414 2.7S 94.1E 66 235 07m41s
 ----- 15 3119 May 31 14:27:29 5366 13845 A -0.4701 0.9443 5.5S 8.0W 62 232 07m28s
 ----- 16 3137 Jun 10 21:11:56 5516 14068 A -0.5449 0.9468 9.7S 109.1W 57 233 07m12s
 ----- 17 3155 Jun 22 03:51:38 5669 14291 A -0.6235 0.9490 15.2S 150.3E 51 239 06m49s
 ----- 18 3173 Jul 02 10:28:58 5823 14514 A -0.7041 0.9507 22.1S 49.4E 45 255 06m21s
 ----- 19 3191 Jul 13 17:02:23 5980 14737 A -0.7881 0.9518 30.6S 51.7W 38 287 05m48s
 ----- 20 3209 Jul 23 23:37:00 6138 14960 A -0.8711 0.9520 40.9S 154.7W 29 358 05m12s
 ----- 21 3227 Aug 04 06:11:22 6299 15183 A -0.9544 0.9509 54.8S 97.9E 17 614 04m35s
 ----- 22 3245 Aug 14 12:50:08 6462 15406 P -1.0345 0.9090 70.9S 28.9W 0
 ----- 23 3263 Aug 25 19:30:46 6627 15629 P -1.1131 0.7727 71.6S 141.6W 0
 ----- 24 3281 Sep 05 02:19:15 6794 15852 P -1.1856 0.6469 72.0S 103.2E 0

----- 25 3299 Sep 16 09:12:44 6963 16075 P -1.2544 0.5273 72.2S 13.4W 0
----- 26 3317 Sep 27 16:14:59 7134 16298 P -1.3165 0.4192 72.2S 132.4W 0
----- 27 3335 Oct 08 23:24:26 7308 16521 P -1.3735 0.3201 72.0S 107.0E 0
----- 28 3353 Oct 19 06:44:49 7483 16744 P -1.4222 0.2352 71.5S 16.1W 0
----- 29 3371 Oct 30 14:13:52 7660 16967 P -1.4645 0.1617 70.8S 140.8W 0
----- 30 3389 Nov 09 21:52:35 7840 17190 P -1.4998 0.1004 70.0S 92.7E 0
----- 31 3407 Nov 22 05:40:53 8021 17413 P -1.5281 0.0512 69.0S 35.7W 0
----- 32 3425 Dec 02 13:38:46 8205 17636 Pe -1.5498 0.0134 68.0S 165.8W 0

SAROS SERIES

166

Saros series 166 contains 77 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

10038 -32 2228 Oct 29 00:15:43 514 2830 Pb -1.5410 0.0477 61.9S 57.7E 0
10082 -31 2246 Nov 09 07:47:03 562 3053 P -1.5082 0.1036 62.5S 63.8W 0

10127	-30	2264	Nov 19	15:28:13	612	3276	P	-1.4830	0.1464	63.2S	172.0E	0
10172	-29	2282	Nov 30	23:15:23	664	3499	P	-1.4625	0.1812	64.1S	46.1E	0
10217	-28	2300	Dec 12	07:09:43	719	3722	P	-1.4473	0.2067	65.0S	81.9W	0
10262	-27	2318	Dec 23	15:07:26	775	3945	P	-1.4346	0.2279	66.1S	148.9E	0
10307	-26	2337	Jan 02	23:09:44	833	4168	P	-1.4252	0.2434	67.2S	18.0E	0
10353	-25	2355	Jan 14	07:12:20	894	4391	P	-1.4158	0.2588	68.2S	113.4W	0
10398	-24	2373	Jan 24	15:14:59	957	4614	P	-1.4062	0.2742	69.3S	114.5E	0
10441	-23	2391	Feb 04	23:15:06	1021	4837	P	-1.3944	0.2933	70.3S	17.6W	0
10485	-22	2409	Feb 15	07:12:30	1088	5060	P	-1.3802	0.3163	71.1S	149.6W	0
10528	-21	2427	Feb 26	15:03:45	1157	5283	P	-1.3607	0.3484	71.7S	79.3E	0
10571	-20	2445	Mar 08	22:49:34	1228	5506	P	-1.3361	0.3891	72.1S	50.9W	0
10614	-19	2463	Mar 20	06:27:54	1301	5729	P	-1.3051	0.4410	72.3S	179.5W	0
10656	-18	2481	Mar 30	14:00:07	1376	5952	P	-1.2685	0.5027	72.1S	53.5E	0
10698	-17	2499	Apr 10	21:22:39	1453	6175	P	-1.2233	0.5797	71.8S	70.8W	0
10740	-16	2517	Apr 22	04:39:28	1532	6398	P	-1.1726	0.6669	71.2S	166.8E	0
10781	-15	2535	May 03	11:47:37	1613	6621	P	-1.1138	0.7691	70.4S	47.1E	0
10821	-14	2553	May 13	18:51:21	1696	6844	P	-1.0504	0.8800	69.5S	70.8W	0
10861	-13	2571	May 25	01:47:00	1782	7067	A	-0.9794	0.9520	57.9S	169.4E	11 926 04m21s
10901	-12	2589	Jun 04	08:40:23	1869	7290	A	-0.9054	0.9600	42.8S	58.6E	25 345 04m10s
10942	-11	2607	Jun 16	15:28:35	1959	7513	A	-0.8258	0.9664	32.6S	47.0W	34 216 03m47s
10983	-10	2625	Jun 26	22:15:44	2050	7736	A	-0.7444	0.9720	24.6S	150.9W	42 150 03m17s
11023	-09	2643	Jul 08	05:00:57	2144	7959	A	-0.6602	0.9768	18.2S	106.7E	49 109 02m44s
11063	-08	2661	Jul 18	11:48:08	2240	8182	A	-0.5766	0.9811	13.2S	4.5E	55 81 02m12s
11104	-07	2679	Jul 29	18:37:06	2338	8405	A	-0.4933	0.9846	9.5S	97.5W	60 62 01m44s
11146	-06	2697	Aug 09	01:29:22	2437	8628	A	-0.4116	0.9877	6.9S	160.1E	66 47 01m20s
11188	-05	2715	Aug 21	08:26:53	2539	8851	A	-0.3333	0.9900	5.4S	56.7E	70 37 01m03s
11231	-04	2733	Aug 31	15:30:17	2643	9074	A	-0.2587	0.9920	4.9S	48.1W	75 29 00m49s
11274	-03	2751	Sep 11	22:41:05	2750	9297	A	-0.1895	0.9934	5.2S	154.6W	79 24 00m40s

11319	-02	2769	Sep 22	05:59:23	2858	9520	A	-0.1254	0.9944	6.1S	96.9E	83	20	00m33s
11364	-01	2787	Oct 03	13:27:29	2968	9743	A	-0.0685	0.9950	7.5S	14.0W	86	18	00m29s
11409	00	2805	Oct 13	21:04:29	3080	9966	A	-0.0181	0.9954	9.1S	127.2W	89	16	00m27s
11454	01	2823	Oct 25	04:50:58	3195	10189	A	0.0252	0.9957	10.8S	117.2E	89	15	00m26s
11499	02	2841	Nov 04	12:47:01	3311	10412	A	0.0615	0.9959	12.4S	0.7W	87	14	00m25s
11545	03	2859	Nov 15	20:52:40	3430	10635	A	0.0901	0.9962	13.8S	121.1W	85	13	00m23s
11591	04	2877	Nov 26	05:06:29	3550	10858	A	0.1130	0.9967	14.8S	116.6E	84	12	00m21s
11638	05	2895	Dec 07	13:27:23	3673	11081	A	0.1306	0.9974	15.3S	7.4W	83	9	00m17s
11685	06	2913	Dec 18	21:55:06	3798	11304	Am	0.1430	0.9985	15.2S	133.1W	82	5	00m10s
11730	07	2931	Dec 30	06:28:24	3925	11527	A	0.1511	1.0000	14.5S	99.7E	81	0	00m00s
11774	08	2950	Jan 09	15:04:40	4053	11750	H	0.1574	1.0020	13.0S	28.4W	81	7	00m13s
11818	09	2968	Jan 20	23:43:38	4184	11973	H	0.1618	1.0044	10.8S	157.3W	81	16	00m29s
11862	10	2986	Jan 31	08:22:37	4317	12196	H	0.1669	1.0075	7.8S	73.5E	80	26	00m48s
-----	11	3004	Feb 12	17:01:39	4453	12419	H	0.1724	1.0110	4.2S	56.1W	80	38	01m09s
-----	12	3022	Feb 23	01:36:38	4590	12642	H	0.1817	1.0150	0.0N	175.1E	80	52	01m32s
-----	13	3040	Mar 05	10:09:38	4729	12865	T	0.1933	1.0194	4.8N	46.6E	79	68	01m56s
-----	14	3058	Mar 16	18:36:24	4870	13088	T	0.2107	1.0242	10.1N	80.6W	78	84	02m21s
-----	15	3076	Mar 27	02:58:45	5014	13311	T	0.2323	1.0292	15.7N	153.2E	76	102	02m46s
-----	16	3094	Apr 07	11:13:06	5159	13534	T	0.2614	1.0344	21.6N	29.1E	75	120	03m10s
-----	17	3112	Apr 18	19:22:29	5307	13757	T	0.2951	1.0396	27.7N	93.6W	73	139	03m32s
-----	18	3130	Apr 30	03:24:00	5456	13980	T	0.3361	1.0448	33.9N	146.2E	70	158	03m50s
-----	19	3148	May 10	11:19:16	5608	14203	T	0.3828	1.0497	40.1N	28.1E	67	179	04m05s
-----	20	3166	May 21	19:07:42	5762	14426	T	0.4359	1.0542	46.1N	87.2W	64	199	04m15s
-----	21	3184	Jun 01	02:51:09	5918	14649	T	0.4937	1.0583	51.8N	160.2E	60	221	04m21s
-----	22	3202	Jun 12	10:29:30	6076	14872	T	0.5562	1.0617	57.1N	50.9E	56	245	04m23s
-----	23	3220	Jun 22	18:03:29	6236	15095	T	0.6226	1.0645	61.6N	54.8W	51	271	04m20s
-----	24	3238	Jul 04	01:34:36	6398	15318	T	0.6920	1.0664	65.0N	156.6W	46	301	04m15s
-----	25	3256	Jul 14	09:04:09	6562	15541	T	0.7631	1.0673	67.2N	104.9E	40	341	04m06s

----- 26 3274 Jul 25 16:32:20 6728 15764 T 0.8356 1.0672 68.0N 9.2E 33 400 03m55s
 ----- 27 3292 Aug 05 00:01:29 6896 15987 T 0.9075 1.0658 67.7N 84.4W 24 514 03m39s
 ----- 28 3310 Aug 17 07:32:01 7067 16210 T 0.9784 1.0619 65.7N 170.1W 11 1038 03m12s
 ----- 29 3328 Aug 27 15:06:31 7239 16433 P 1.0465 0.9339 61.6N 92.2E 0
 ----- 30 3346 Sep 07 22:43:18 7413 16656 P 1.1128 0.8052 61.4N 30.1W 0
 ----- 31 3364 Sep 18 06:26:13 7590 16879 P 1.1742 0.6861 61.3N 153.8W 0
 ----- 32 3382 Sep 29 14:13:38 7769 17102 P 1.2319 0.5743 61.3N 81.4E 0
 ----- 33 3400 Oct 10 22:08:39 7949 17325 P 1.2836 0.4746 61.5N 45.3W 0
 ----- 34 3418 Oct 22 06:09:00 8132 17548 P 1.3309 0.3839 61.8N 173.4W 0
 ----- 35 3436 Nov 01 14:18:00 8317 17771 P 1.3714 0.3068 62.3N 56.2E 0
 ----- 36 3454 Nov 12 22:33:20 8504 17994 P 1.4067 0.2400 63.0N 75.9W 0
 ----- 37 3472 Nov 23 06:56:18 8693 18217 P 1.4357 0.1855 63.7N 149.9E 0
 ----- 38 3490 Dec 04 15:25:29 8884 18440 P 1.4599 0.1407 64.6N 13.9E 0
 ----- 39 3508 Dec 16 00:01:28 9077 18663 P 1.4783 0.1069 65.6N 124.1W 0
 ----- 40 3526 Dec 27 08:42:20 9272 18886 P 1.4930 0.0801 66.6N 96.2E 0
 ----- 41 3545 Jan 06 17:26:53 9469 19109 P 1.5048 0.0588 67.6N 44.8W 0
 ----- 42 3563 Jan 18 02:14:51 9669 19332 P 1.5138 0.0427 68.7N 172.8E 0
 ----- 43 3581 Jan 28 11:04:38 9870 19555 P 1.5211 0.0295 69.7N 29.3E 0
 ----- 44 3599 Feb 08 19:54:09 10074 19778 Pe 1.5290 0.0153 70.6N 114.8W 0

SAROS SERIES

167

Saros series 167 contains 72 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
09976	-37	2203 Sep 06	14:50:23	450	2519	Pb	1.5374	0.0067	71.8N	69.4E	0		
10020	-36	2221 Sep 16	22:25:14	495	2742	P	1.4775	0.1170	72.1N	58.1W	0		
10064	-35	2239 Sep 28	06:09:02	543	2965	P	1.4239	0.2160	72.1N	172.0E	0		
10109	-34	2257 Oct 08	14:01:32	592	3188	P	1.3765	0.3034	71.9N	40.0E	0		
10154	-33	2275 Oct 19	22:03:12	643	3411	P	1.3358	0.3786	71.4N	93.9W	0		
10200	-32	2293 Oct 30	06:13:45	697	3634	P	1.3017	0.4416	70.7N	130.3E	0		
10245	-31	2311 Nov 11	14:33:19	753	3857	P	1.2745	0.4919	69.9N	7.1W	0		
10290	-30	2329 Nov 21	22:59:20	810	4080	P	1.2521	0.5333	68.9N	145.4W	0		
10336	-29	2347 Dec 03	07:33:33	870	4303	P	1.2358	0.5635	67.9N	74.8E	0		
10381	-28	2365 Dec 13	16:12:42	932	4526	P	1.2230	0.5872	66.8N	65.6W	0		
10425	-27	2383 Dec 25	00:57:04	995	4749	P	1.2144	0.6033	65.8N	153.2E	0		
10469	-26	2402 Jan 04	09:42:28	1061	4972	P	1.2064	0.6184	64.7N	12.2E	0		
10512	-25	2420 Jan 15	18:30:39	1129	5195	P	1.2004	0.6298	63.8N	129.2W	0		
10555	-24	2438 Jan 26	03:17:37	1199	5418	P	1.1929	0.6441	63.0N	90.1E	0		
10598	-23	2456 Feb 06	12:03:15	1272	5641	P	1.1843	0.6607	62.3N	50.1W	0		
10640	-22	2474 Feb 16	20:44:52	1346	5864	P	1.1720	0.6841	61.7N	171.0E	0		
10682	-21	2492 Feb 28	05:22:53	1422	6087	P	1.1568	0.7135	61.4N	33.1E	0		

10724	-20	2510	Mar 11	13:54:45	1500	6310	P	1.1362	0.7531	61.1N	103.2W	0
10765	-19	2528	Mar 21	22:20:29	1581	6533	P	1.1103	0.8030	61.1N	122.0E	0
10805	-18	2546	Apr 02	06:39:22	1663	6756	P	1.0785	0.8647	61.2N	11.0W	0
10845	-17	2564	Apr 12	14:51:42	1748	6979	P	1.0412	0.9373	61.5N	142.5W	0
10885	-16	2582	Apr 23	22:55:56	1834	7202	Tn	0.9969	1.0462	62.8N	91.1E	2 - 02m17s
10926	-15	2600	May 05	06:53:54	1923	7425	T	0.9474	1.0552	68.5N	2.2E	18 579 02m57s
10967	-14	2618	May 16	14:44:47	2014	7648	T	0.8919	1.0612	70.9N	97.2W	27 447 03m24s
11008	-13	2636	May 26	22:30:53	2107	7871	T	0.8322	1.0661	71.8N	165.5E	33 392 03m48s
11047	-12	2654	Jun 07	06:09:50	2202	8094	T	0.7665	1.0703	70.6N	70.1E	40 358 04m12s
11088	-11	2672	Jun 17	13:46:16	2299	8317	T	0.6987	1.0735	67.3N	28.6W	45 335 04m36s
11129	-10	2690	Jun 28	21:18:07	2398	8540	T	0.6272	1.0759	62.2N	131.3W	51 317 05m00s
11171	-09	2708	Jul 10	04:49:16	2499	8763	T	0.5551	1.0774	56.1N	121.9E	56 302 05m22s
11213	-08	2726	Jul 21	12:17:48	2602	8986	T	0.4807	1.0780	49.1N	12.9E	61 288 05m43s
11256	-07	2744	Jul 31	19:48:25	2707	9209	T	0.4082	1.0778	41.8N	98.6W	66 276 05m59s
11301	-06	2762	Aug 12	03:19:41	2815	9432	T	0.3366	1.0766	34.2N	148.5E	70 263 06m11s
11346	-05	2780	Aug 22	10:53:34	2924	9655	T	0.2672	1.0747	26.5N	34.2E	74 251 06m16s
11391	-04	2798	Sep 02	18:30:51	3036	9878	T	0.2008	1.0719	18.8N	81.4W	78 238 06m14s
11436	-03	2816	Sep 13	02:13:14	3149	10101	T	0.1390	1.0686	11.1N	161.5E	82 226 06m06s
11481	-02	2834	Sep 24	10:01:22	3265	10324	T	0.0823	1.0647	3.8N	42.9E	85 212 05m51s
11527	-01	2852	Oct 04	17:54:44	3383	10547	Tm	0.0305	1.0604	3.3S	76.9W	88 198 05m31s
11573	00	2870	Oct 16	01:55:41	3502	10770	T	-0.0147	1.0557	9.9S	161.9E	89 184 05m07s
11620	01	2888	Oct 26	10:03:09	3624	10993	T	-0.0541	1.0509	16.0S	39.5E	87 169 04m42s
11667	02	2906	Nov 07	18:18:03	3748	11216	T	-0.0869	1.0461	21.3S	84.1W	85 154 04m15s
11712	03	2924	Nov 18	02:38:44	3874	11439	T	-0.1143	1.0413	25.8S	151.6E	83 139 03m47s
11757	04	2942	Nov 29	11:06:48	4002	11662	T	-0.1353	1.0367	29.3S	26.2E	82 124 03m21s
11801	05	2960	Dec 09	19:39:39	4133	11885	T	-0.1517	1.0323	31.7S	99.8W	81 111 02m57s
11845	06	2978	Dec 21	04:17:20	4265	12108	T	-0.1638	1.0284	32.9S	133.5E	80 98 02m34s

11890 07 2996 Dec 31 12:58:17 4399 12331 T -0.1729 1.0249 32.9S 6.2E 80 86 02m14s

----- 08 3015 Jan 12 21:42:29 4535 12554 T -0.1791 1.0218 31.7S 122.2W 80 76 01m57s

----- 09 3033 Jan 23 06:26:27 4674 12777 T -0.1850 1.0193 29.6S 109.2E 79 67 01m43s

----- 10 3051 Feb 03 15:09:48 4814 13000 H3 -0.1910 1.0172 26.8S 19.8W 79 60 01m32s

----- 11 3069 Feb 13 23:50:23 4957 13223 H -0.1990 1.0157 23.5S 148.6W 78 55 01m23s

----- 12 3087 Feb 25 08:28:22 5102 13446 H -0.2091 1.0145 19.9S 82.8E 78 51 01m17s

----- 13 3105 Mar 08 16:59:16 5248 13669 H -0.2245 1.0137 16.4S 44.2W 77 48 01m13s

----- 14 3123 Mar 20 01:25:14 5397 13892 H -0.2436 1.0131 13.0S 170.2W 76 46 01m11s

----- 15 3141 Mar 30 09:42:12 5548 14115 H -0.2695 1.0127 10.0S 66.1E 74 45 01m10s

----- 16 3159 Apr 10 17:52:34 5701 14338 H -0.3004 1.0124 7.6S 56.0W 72 44 01m10s

----- 17 3177 Apr 21 01:51:45 5856 14561 H -0.3400 1.0120 6.1S 175.2W 70 44 01m09s

----- 18 3195 May 02 09:44:13 6013 14784 H -0.3846 1.0115 5.5S 67.3E 67 42 01m08s

----- 19 3213 May 12 17:25:49 6172 15007 H -0.4372 1.0106 6.1S 47.5W 64 40 01m06s

----- 20 3231 May 24 01:00:02 6333 15230 H -0.4952 1.0095 7.9S 160.7W 60 37 01m01s

----- 21 3249 Jun 03 08:24:31 6497 15453 H -0.5603 1.0078 11.1S 88.2E 56 32 00m51s

----- 22 3267 Jun 14 15:43:08 6662 15676 H -0.6294 1.0056 15.6S 22.0W 51 25 00m37s

----- 23 3285 Jun 24 22:54:08 6830 15899 H -0.7039 1.0027 21.6S 131.0W 45 13 00m17s

----- 24 3303 Jul 07 05:59:42 6999 16122 A -0.7818 0.9990 29.3S 120.4E 38 5 00m06s

----- 25 3321 Jul 17 13:00:57 7171 16345 A -0.8621 0.9944 38.9S 11.4E 30 39 00m33s

----- 26 3339 Jul 28 19:59:30 7344 16568 A -0.9434 0.9883 51.7S 100.2W 19 126 01m01s

----- 27 3357 Aug 08 02:56:15 7520 16791 P -1.0252 0.9392 70.5S 131.6E 0

----- 28 3375 Aug 19 09:52:27 7698 17014 P -1.1063 0.7926 71.2S 15.4E 0

----- 29 3393 Aug 29 16:50:10 7878 17237 P -1.1850 0.6512 71.8S 101.7W 0

----- 30 3411 Sep 10 23:50:10 8060 17460 P -1.2604 0.5171 72.2S 140.2E 0

----- 31 3429 Sep 21 06:52:35 8244 17683 P -1.3327 0.3896 72.3S 21.2E 0

----- 32 3447 Oct 02 14:00:16 8430 17906 P -1.3996 0.2731 72.2S 99.1W 0

----- 33 3465 Oct 12 21:13:11 8618 18129 P -1.4614 0.1668 71.9S 139.5E 0

----- 34 3483 Oct 24 04:33:10 8808 18352 Pe -1.5162 0.0737 71.3S 16.8E 0

SAROS SERIES

168

Saros series 168 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

10091	-36	2250 Aug 28	13:51:18	572	3100	Pb	-1.5278	0.0120	61.7S	96.6W	0		
10136	-35	2268 Sep 07	21:27:52	623	3323	P	-1.4722	0.1194	61.4S	140.6E	0		
10182	-34	2286 Sep 19	05:10:04	676	3546	P	-1.4214	0.2166	61.2S	16.5E	0		
10227	-33	2304 Sep 30	12:58:17	730	3769	P	-1.3760	0.3030	61.2S	109.0W	0		
10272	-32	2322 Oct 11	20:53:38	787	3992	P	-1.3371	0.3763	61.4S	123.6E	0		
10317	-31	2340 Oct 22	04:55:28	846	4215	P	-1.3037	0.4387	61.7S	5.3W	0		
10363	-30	2358 Nov 02	13:04:00	907	4438	P	-1.2765	0.4889	62.2S	136.1W	0		
10407	-29	2376 Nov 12	21:19:06	970	4661	P	-1.2551	0.5279	62.8S	91.4E	0		
10451	-28	2394 Nov 24	05:40:36	1035	4884	P	-1.2398	0.5555	63.6S	43.0W	0		
10494	-27	2412 Dec 04	14:06:31	1102	5107	P	-1.2288	0.5751	64.5S	178.7W	0		

10537	-26	2430	Dec 15	22:37:29	1172	5330	P	-1.2227	0.5857	65.5S	44.0E	0
10580	-25	2448	Dec 26	07:10:41	1243	5553	P	-1.2190	0.5918	66.5S	94.2W	0
10623	-24	2467	Jan 06	15:46:09	1316	5776	P	-1.2180	0.5934	67.6S	126.4E	0
10665	-23	2485	Jan 17	00:19:53	1392	5999	P	-1.2162	0.5962	68.6S	13.0W	0
10707	-22	2503	Jan 29	08:53:33	1469	6222	P	-1.2151	0.5979	69.6S	153.0W	0
10748	-21	2521	Feb 08	17:22:54	1549	6445	P	-1.2116	0.6039	70.5S	67.4E	0
10789	-20	2539	Feb 20	01:48:05	1631	6668	P	-1.2050	0.6153	71.3S	71.7W	0
10829	-19	2557	Mar 02	10:05:49	1714	6891	P	-1.1932	0.6361	71.8S	150.5E	0
10869	-18	2575	Mar 13	18:17:20	1800	7114	P	-1.1771	0.6646	72.1S	13.8E	0
10909	-17	2593	Mar 24	02:19:51	1888	7337	P	-1.1544	0.7045	72.1S	120.7W	0
10951	-16	2611	Apr 05	10:13:05	1978	7560	P	-1.1251	0.7564	71.9S	107.3E	0
10992	-15	2629	Apr 15	17:56:38	2070	7783	P	-1.0887	0.8209	71.5S	22.1W	0
11032	-14	2647	Apr 27	01:30:49	2164	8006	P	-1.0450	0.8980	70.8S	148.5W	0
11072	-13	2665	May 07	08:55:09	2260	8229	As	-0.9943	0.9668	66.3S	82.4E	4 - 02m35s
11113	-12	2683	May 18	16:10:08	2358	8452	A	-0.9366	0.9706	49.7S	42.7W	20 305 02m44s
11155	-11	2701	May 29	23:16:46	2459	8675	A	-0.8726	0.9720	39.4S	155.4W	29 206 02m54s
11197	-10	2719	Jun 10	06:16:10	2561	8898	A	-0.8032	0.9726	30.8S	96.0E	36 165 03m04s
11239	-09	2737	Jun 20	13:08:00	2666	9121	A	-0.7282	0.9726	23.4S	9.4W	43 143 03m14s
11282	-08	2755	Jul 01	19:55:36	2772	9344	A	-0.6502	0.9719	17.2S	112.6W	49 132 03m24s
11327	-07	2773	Jul 12	02:38:32	2881	9567	A	-0.5687	0.9707	12.0S	146.0E	55 127 03m35s
11373	-06	2791	Jul 23	09:20:33	2992	9790	A	-0.4869	0.9689	8.0S	45.6E	61 127 03m46s
11418	-05	2809	Aug 02	15:59:43	3104	10013	A	-0.4032	0.9665	4.9S	53.6W	66 131 03m58s
11463	-04	2827	Aug 13	22:41:10	3219	10236	A	-0.3219	0.9637	3.0S	152.9W	71 138 04m12s
11509	-03	2845	Aug 24	05:23:05	3336	10459	A	-0.2411	0.9603	1.8S	107.9E	76 148 04m30s
11555	-02	2863	Sep 04	12:09:14	3455	10682	A	-0.1646	0.9567	1.6S	7.7E	81 159 04m50s
11601	-01	2881	Sep 14	18:58:55	3576	10905	Am	-0.0914	0.9527	1.9S	93.3W	85 174 05m15s
11648	00	2899	Sep 26	01:55:26	3699	11128	A	-0.0243	0.9486	2.7S	163.9E	89 189 05m44s
11694	01	2917	Oct 07	08:58:15	3824	11351	A	0.0371	0.9443	3.8S	59.5E	88 206 06m19s

11739	02	2935	Oct 18	16:07:51	3952	11574	A	0.0925	0.9401	5.0S	46.7W	85	223	06m59s
11783	03	2953	Oct 28	23:25:40	4081	11797	A	0.1405	0.9359	6.1S	155.1W	82	241	07m44s
11827	04	2971	Nov 09	06:51:08	4212	12020	A	0.1815	0.9320	7.1S	94.6E	80	258	08m32s
11871	05	2989	Nov 19	14:25:04	4346	12243	A	0.2155	0.9283	7.8S	18.0W	78	275	09m23s
----	06	3007	Dec 01	22:05:03	4481	12466	A	0.2441	0.9251	8.0S	132.1W	76	291	10m13s
----	07	3025	Dec 12	05:53:04	4619	12689	A	0.2659	0.9223	7.8S	111.6E	75	304	10m59s
----	08	3043	Dec 23	13:45:49	4759	12912	A	0.2835	0.9201	6.9S	5.9W	74	316	11m35s
----	09	3062	Jan 02	21:43:43	4900	13135	A	0.2965	0.9184	5.5S	124.8W	73	324	11m59s
----	10	3080	Jan 14	05:43:42	5044	13358	A	0.3078	0.9174	3.4S	115.5E	72	330	12m09s
----	11	3098	Jan 24	13:45:55	5190	13581	A	0.3172	0.9170	0.7S	4.9W	72	332	12m05s
----	12	3116	Feb 05	21:46:51	5338	13804	A	0.3276	0.9173	2.7N	125.2W	71	332	11m48s
----	13	3134	Feb 16	05:46:01	5488	14027	A	0.3394	0.9182	6.8N	114.6E	70	329	11m21s
----	14	3152	Feb 27	13:41:04	5640	14250	A	0.3544	0.9197	11.5N	4.7W	69	324	10m48s
----	15	3170	Mar 09	21:32:05	5795	14473	A	0.3726	0.9216	16.6N	123.2W	68	318	10m10s
----	16	3188	Mar 20	05:15:10	5951	14696	A	0.3975	0.9241	22.4N	120.2E	66	310	09m28s
----	17	3206	Mar 31	12:52:07	6109	14919	A	0.4275	0.9269	28.5N	5.1E	65	302	08m44s
----	18	3224	Apr 10	20:20:10	6270	15142	A	0.4650	0.9300	35.1N	107.7W	62	295	07m58s
----	19	3242	Apr 22	03:41:59	6432	15365	A	0.5075	0.9332	41.9N	141.5E	59	289	07m12s
----	20	3260	May 02	10:53:09	6597	15588	A	0.5591	0.9365	49.0N	33.8E	56	285	06m26s
----	21	3278	May 13	17:58:55	6763	15811	A	0.6152	0.9397	56.3N	71.4W	52	284	05m43s
----	22	3296	May 24	00:55:40	6932	16034	A	0.6794	0.9428	63.7N	172.5W	47	290	05m02s
----	23	3314	Jun 05	07:48:13	7103	16257	A	0.7470	0.9455	71.1N	91.6E	41	304	04m26s
----	24	3332	Jun 15	14:32:53	7276	16480	A	0.8215	0.9477	78.3N	8.8E	34	341	03m56s
----	25	3350	Jun 26	21:16:06	7450	16703	A	0.8975	0.9491	82.0N	37.4W	26	430	03m30s
----	26	3368	Jul 07	03:54:56	7627	16926	A	0.9777	0.9486	73.8N	74.9W	11	965	03m09s
----	27	3386	Jul 18	10:33:27	7806	17149	P	1.0583	0.8684	63.7N	164.0W	0		
----	28	3404	Jul 29	17:11:11	7988	17372	P	1.1399	0.7273	63.0N	88.1E	0		
----	29	3422	Aug 09	23:51:38	8171	17595	P	1.2196	0.5888	62.4N	20.3W	0		

----- 30 3440 Aug 20 06:35:03 8356 17818 P 1.2972 0.4533 61.9N 129.3W 0

----- 31 3458 Aug 31 13:22:16 8543 18041 P 1.3720 0.3223 61.6N 120.9E 0

----- 32 3476 Sep 10 20:15:39 8733 18264 P 1.4423 0.1990 61.4N 9.6E 0

----- 33 3494 Sep 22 03:15:40 8924 18487 Pe 1.5077 0.0840 61.3N 103.3W 0

SAROS SERIES

169

Saros series 169 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

10300 -33 2333 Sep 10 05:42:00 823 4127 Pb 1.5299 0.0592 72.0N 157.1W 0

10346 -32 2351 Sep 21 12:33:27 883 4350 P 1.4664 0.1680 72.2N 86.2E 0

10391 -31 2369 Oct 01 19:33:31 945 4573 P 1.4094 0.2651 72.1N 32.7W 0

10434 -30 2387 Oct 13 02:41:04 1009 4796 P 1.3579 0.3523 71.8N 153.3W 0

10478 -29 2405 Oct 23 09:58:55 1076 5019 P 1.3142 0.4261 71.3N 83.8E 0

10521 -28 2423 Nov 03 17:24:51 1144 5242 P 1.2769 0.4887 70.5N 40.5W 0

10564	-27	2441	Nov 14	00:59:17	1214	5465	P	1.2459	0.5404	69.6N	166.3W	0
10607	-26	2459	Nov 25	08:41:41	1287	5688	P	1.2211	0.5818	68.6N	66.5E	0
10649	-25	2477	Dec 05	16:32:05	1362	5911	P	1.2019	0.6136	67.5N	62.0W	0
10691	-24	2495	Dec 17	00:27:39	1438	6134	P	1.1867	0.6389	66.4N	168.8E	0
10733	-23	2513	Dec 28	08:28:05	1517	6357	P	1.1748	0.6587	65.4N	38.8E	0
10773	-22	2532	Jan 08	16:31:05	1598	6580	P	1.1645	0.6760	64.4N	91.4W	0
10813	-21	2550	Jan 19	00:36:25	1681	6803	P	1.1554	0.6914	63.5N	138.2E	0
10853	-20	2568	Jan 30	08:39:47	1766	7026	P	1.1442	0.7106	62.7N	8.6E	0
10893	-19	2586	Feb 09	16:42:36	1853	7249	P	1.1318	0.7319	62.0N	120.6W	0
10934	-18	2604	Feb 22	00:40:35	1942	7472	P	1.1150	0.7609	61.5N	111.5E	0
10975	-17	2622	Mar 04	08:34:43	2033	7695	P	1.0946	0.7963	61.2N	15.3W	0
11016	-16	2640	Mar 14	16:21:09	2127	7918	P	1.0672	0.8439	61.0N	140.1W	0
11056	-15	2658	Mar 26	00:02:23	2222	8141	P	1.0350	0.9002	61.0N	96.4E	0
11097	-14	2676	Apr 05	07:35:27	2319	8364	An	0.9952	0.9336	61.9N	17.3W	4 - 04m25s
11139	-13	2694	Apr 16	15:01:10	2419	8587	A	0.9489	0.9422	63.2N	105.8W	18 679 04m05s
11181	-12	2712	Apr 27	22:19:08	2521	8810	A	0.8956	0.9492	64.2N	156.8E	26 417 03m41s
11223	-11	2730	May 09	05:30:52	2624	9033	A	0.8363	0.9560	65.0N	60.6E	33 291 03m16s
11266	-10	2748	May 19	12:36:24	2730	9256	A	0.7709	0.9624	65.1N	33.2W	39 213 02m53s
11311	-09	2766	May 30	19:36:02	2838	9479	A	0.6996	0.9686	63.8N	125.4W	45 158 02m29s
11355	-08	2784	Jun 10	02:32:16	2948	9702	A	0.6245	0.9744	60.9N	141.7E	51 118 02m07s
11400	-07	2802	Jun 21	09:25:30	3060	9925	A	0.5461	0.9798	56.5N	46.9E	57 86 01m46s
11445	-06	2820	Jul 01	16:17:03	3174	10148	A	0.4652	0.9847	50.8N	50.3W	62 61 01m24s
11490	-05	2838	Jul 12	23:08:16	3290	10371	A	0.3828	0.9891	44.3N	149.7W	67 42 01m03s
11536	-04	2856	Jul 23	06:01:10	3408	10594	A	0.3009	0.9929	37.2N	108.7E	72 26 00m43s
11583	-03	2874	Aug 03	12:56:53	3528	10817	A	0.2203	0.9961	29.7N	5.1E	77 14 00m24s
11630	-02	2892	Aug 13	19:55:10	3650	11040	A	0.1410	0.9988	21.9N	100.0W	82 4 00m08s
11677	-01	2910	Aug 26	02:59:33	3775	11263	H	0.0660	1.0009	14.0N	152.8E	86 3 00m06s
11722	00	2928	Sep 05	10:09:23	3901	11486	H	-0.0052	1.0024	6.1N	43.8E	90 8 00m16s

11766 01 2946 Sep 16 17:27:21 4030 11709 H -0.0706 1.0036 1.6S 67.3W 86 12 00m23s
 11810 02 2964 Sep 27 00:52:08 4160 11932 Hm -0.1310 1.0043 9.2S 179.9E 82 15 00m27s
 11854 03 2982 Oct 08 08:26:58 4293 12155 H -0.1838 1.0047 16.4S 65.0E 79 17 00m29s
 11898 04 3000 Oct 19 16:10:16 4428 12378 H -0.2303 1.0049 23.1S 51.6W 77 17 00m29s
 ----- 05 3018 Oct 31 00:02:35 4564 12601 H -0.2700 1.0050 29.2S 169.8W 74 18 00m29s
 ----- 06 3036 Nov 10 08:04:14 4703 12824 H -0.3029 1.0050 34.6S 70.6E 72 18 00m28s
 ----- 07 3054 Nov 21 16:14:51 4844 13047 H -0.3292 1.0052 39.1S 50.2W 71 19 00m29s
 ----- 08 3072 Dec 02 00:34:04 4987 13270 H -0.3490 1.0055 42.5S 172.0W 69 20 00m30s
 ----- 09 3090 Dec 13 08:59:13 5132 13493 H -0.3647 1.0062 44.6S 65.6E 68 23 00m32s
 ----- 10 3108 Dec 24 17:32:05 5280 13716 H -0.3747 1.0071 45.3S 58.1W 68 27 00m37s
 ----- 11 3127 Jan 05 02:09:01 5429 13939 H -0.3824 1.0086 44.8S 177.1E 67 32 00m44s
 ----- 12 3145 Jan 15 10:49:51 5580 14162 H -0.3872 1.0105 43.0S 50.8E 67 39 00m53s
 ----- 13 3163 Jan 26 19:31:05 5733 14385 H -0.3923 1.0129 40.3S 76.4W 67 48 01m04s
 ----- 14 3181 Feb 06 04:13:46 5889 14608 H2 -0.3968 1.0158 37.0S 155.3E 66 59 01m18s
 ----- 15 3199 Feb 17 12:54:11 6046 14831 T -0.4039 1.0192 33.3S 26.7E 66 71 01m35s
 ----- 16 3217 Feb 27 21:32:10 6206 15054 T -0.4135 1.0230 29.5S 101.8W 65 85 01m54s
 ----- 17 3235 Mar 11 06:05:34 6368 15277 T -0.4275 1.0272 25.9S 130.4E 65 101 02m15s
 ----- 18 3253 Mar 21 14:34:33 6531 15500 T -0.4454 1.0316 22.5S 3.5E 63 118 02m38s
 ----- 19 3271 Apr 01 22:56:37 6697 15723 T -0.4697 1.0363 19.8S 121.7W 62 137 03m04s
 ----- 20 3289 Apr 12 07:12:48 6865 15946 T -0.4995 1.0410 17.7S 114.4E 60 156 03m30s
 ----- 21 3307 Apr 24 15:21:41 7035 16169 T -0.5358 1.0457 16.7S 7.7W 57 178 03m58s
 ----- 22 3325 May 04 23:25:06 7207 16392 T -0.5774 1.0501 16.6S 128.5W 55 201 04m26s
 ----- 23 3343 May 16 07:20:08 7381 16615 T -0.6263 1.0542 17.8S 112.7E 51 228 04m51s
 ----- 24 3361 May 26 15:10:43 7557 16838 T -0.6793 1.0578 20.3S 5.3W 47 258 05m12s
 ----- 25 3379 Jun 06 22:54:10 7736 17061 T -0.7386 1.0608 24.3S 122.0W 42 295 05m25s
 ----- 26 3397 Jun 17 06:34:43 7916 17284 T -0.8009 1.0630 29.9S 121.4E 37 345 05m28s
 ----- 27 3415 Jun 29 14:08:58 8098 17507 T -0.8684 1.0641 37.5S 5.4E 29 425 05m17s
 ----- 28 3433 Jul 09 21:42:46 8283 17730 T -0.9367 1.0637 48.0S 112.2W 20 605 04m50s

----- 29 3451 Jul 21 05:12:54 8469 17953 T- -1.0077 1.0088 68.9S 121.7E 0
----- 30 3469 Jul 31 12:43:56 8658 18176 P -1.0783 0.8723 69.8S 2.2W 0
----- 31 3487 Aug 11 20:13:46 8849 18399 P -1.1498 0.7335 70.7S 126.3W 0
----- 32 3505 Aug 23 03:46:55 9041 18622 P -1.2186 0.5999 71.3S 108.1E 0
----- 33 3523 Sep 03 11:21:40 9236 18845 P -1.2858 0.4695 71.8S 18.3W 0
----- 34 3541 Sep 13 19:00:20 9433 19068 P -1.3498 0.3455 72.1S 146.0W 0
----- 35 3559 Sep 25 02:43:37 9632 19291 P -1.4099 0.2297 72.2S 84.9E 0
----- 36 3577 Oct 05 10:32:49 9833 19514 P -1.4652 0.1237 72.0S 45.6W 0
----- 37 3595 Oct 16 18:28:32 10036 19737 Pe -1.5153 0.0285 71.6S 177.4W 0

SAROS SERIES

170

Saros series 170 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

10327 -35 2344 Aug 09 11:59:05 859 4262 Pb -1.4974 0.0788 62.3S 52.2W 0

10373	-34	2362	Aug 20	19:18:10	920	4485	P	-1.4239	0.2148	61.8S	170.7W	0
10417	-33	2380	Aug 31	02:44:39	984	4708	P	-1.3553	0.3422	61.4S	69.2E	0
10461	-32	2398	Sep 11	10:16:34	1049	4931	P	-1.2902	0.4632	61.2S	52.3W	0
10504	-31	2416	Sep 21	17:57:51	1117	5154	P	-1.2321	0.5716	61.1S	176.0W	0
10547	-30	2434	Oct 03	01:46:03	1186	5377	P	-1.1789	0.6705	61.1S	58.6E	0
10590	-29	2452	Oct 13	09:44:05	1258	5600	P	-1.1334	0.7553	61.3S	69.3W	0
10632	-28	2470	Oct 24	17:49:29	1332	5823	P	-1.0933	0.8298	61.7S	160.9E	0
10674	-27	2488	Nov 04	02:04:56	1408	6046	P	-1.0609	0.8898	62.3S	28.4E	0
10716	-26	2506	Nov 16	10:27:38	1486	6269	P	-1.0340	0.9396	63.0S	106.0W	0
10757	-25	2524	Nov 26	18:58:09	1566	6492	P	-1.0134	0.9778	63.8S	117.4E	0
10798	-24	2542	Dec 08	03:35:01	1648	6715	T-	-0.9975	1.0072	64.7S	21.0W	0
10838	-23	2560	Dec 18	12:17:54	1732	6938	T	-0.9868	1.0184	73.6S	153.6W	8 444 00m55s
10878	-22	2578	Dec 29	21:04:04	1818	7161	T	-0.9781	1.0201	77.9S	61.6E	11 357 01m02s
10918	-21	2597	Jan 09	05:52:34	1907	7384	T	-0.9713	1.0219	80.8S	94.3W	13 334 01m08s
10959	-20	2615	Jan 21	14:42:02	1997	7607	T	-0.9651	1.0241	81.6S	99.5E	14 328 01m17s
11000	-19	2633	Jan 31	23:31:25	2090	7830	T	-0.9592	1.0266	79.9S	64.6W	16 332 01m27s
11040	-18	2651	Feb 12	08:17:28	2184	8053	T	-0.9502	1.0298	76.6S	139.9E	18 332 01m41s
11081	-17	2669	Feb 22	17:00:38	2281	8276	T	-0.9390	1.0333	72.2S	7.0W	20 333 01m58s
11122	-16	2687	Mar 06	01:38:13	2379	8499	T	-0.9230	1.0374	66.9S	148.6W	22 330 02m19s
11164	-15	2705	Mar 17	10:10:57	2480	8722	T	-0.9031	1.0419	61.0S	74.0E	25 327 02m44s
11206	-14	2723	Mar 28	18:35:42	2583	8945	T	-0.8766	1.0465	54.6S	59.8W	28 321 03m13s
11249	-13	2741	Apr 08	02:54:50	2688	9168	T	-0.8453	1.0513	47.9S	169.2E	32 317 03m46s
11292	-12	2759	Apr 19	11:05:50	2795	9391	T	-0.8071	1.0560	41.0S	41.2E	36 311 04m22s
11337	-11	2777	Apr 29	19:10:09	2904	9614	T	-0.7632	1.0607	34.1S	84.2W	40 307 05m00s
11382	-10	2795	May 11	03:06:46	3015	9837	T	-0.7126	1.0649	27.2S	153.0E	44 302 05m37s
11427	-09	2813	May 21	10:57:38	3128	10060	T	-0.6571	1.0688	20.7S	32.4E	49 297 06m11s
11472	-08	2831	Jun 01	18:42:34	3244	10283	T	-0.5964	1.0720	14.6S	86.0W	53 292 06m39s
11518	-07	2849	Jun 12	02:21:56	3361	10506	T	-0.5310	1.0747	9.0S	157.7E	58 286 07m00s

11564 -06 2867 Jun 23 09:57:35 3480 10729 T -0.4622 1.0766 4.1S 43.0E 62 279 07m10s
 11611 -05 2885 Jul 03 17:29:55 3602 10952 T -0.3905 1.0777 0.1N 70.2W 67 272 07m11s
 11658 -04 2903 Jul 16 01:00:45 3725 11175 T -0.3177 1.0780 3.4N 177.5E 71 265 07m04s
 11704 -03 2921 Jul 26 08:29:29 3851 11398 T -0.2434 1.0775 5.8N 66.2E 76 258 06m50s
 11749 -02 2939 Aug 06 15:59:27 3979 11621 T -0.1702 1.0761 7.3N 45.1W 80 250 06m33s
 11793 -01 2957 Aug 16 23:30:11 4108 11844 T -0.0978 1.0739 8.0N 156.4W 84 241 06m13s
 11837 00 2975 Aug 28 07:03:32 4240 12067 Tm -0.0279 1.0709 8.0N 91.8E 88 231 05m53s
 11881 01 2993 Sep 07 14:40:11 4374 12290 T 0.0387 1.0673 7.4N 21.0W 88 220 05m33s
 ----- 02 3011 Sep 19 22:22:01 4510 12513 T 0.1006 1.0631 6.4N 135.2W 84 208 05m13s
 ----- 03 3029 Sep 30 06:09:34 4648 12736 T 0.1575 1.0585 5.0N 109.1E 81 195 04m53s
 ----- 04 3047 Oct 11 14:02:28 4788 12959 T 0.2094 1.0534 3.7N 8.2W 78 180 04m34s
 ----- 05 3065 Oct 21 22:02:28 4931 13182 T 0.2550 1.0482 2.3N 127.4W 75 165 04m14s
 ----- 06 3083 Nov 02 06:09:18 5075 13405 T 0.2944 1.0428 1.1N 111.5E 73 149 03m53s
 ----- 07 3101 Nov 13 14:23:09 5221 13628 T 0.3276 1.0375 0.1N 11.4W 71 133 03m32s
 ----- 08 3119 Nov 24 22:43:30 5370 13851 T 0.3548 1.0323 0.4S 136.1W 69 116 03m09s
 ----- 09 3137 Dec 05 07:10:06 5520 14074 T 0.3765 1.0274 0.6S 97.5E 68 100 02m46s
 ----- 10 3155 Dec 16 15:42:37 5673 14297 T 0.3927 1.0228 0.2S 30.4W 67 84 02m22s
 ----- 11 3173 Dec 27 00:18:29 5827 14520 T 0.4054 1.0186 0.7N 159.3W 66 70 01m58s
 ----- 12 3192 Jan 07 08:58:32 5984 14743 H 0.4142 1.0149 2.2N 70.7E 66 56 01m36s
 ----- 13 3210 Jan 17 17:39:31 6143 14966 H 0.4213 1.0117 4.3N 59.7W 65 45 01m15s
 ----- 14 3228 Jan 29 02:21:39 6304 15189 H 0.4273 1.0091 7.0N 169.5E 65 35 00m58s
 ----- 15 3246 Feb 08 11:00:42 6467 15412 H 0.4351 1.0069 10.5N 39.2E 64 26 00m43s
 ----- 16 3264 Feb 19 19:38:39 6632 15635 H 0.4433 1.0051 14.4N 90.9W 64 20 00m32s
 ----- 17 3282 Mar 02 04:11:21 6799 15858 H 0.4550 1.0038 19.0N 140.2E 63 15 00m23s
 ----- 18 3300 Mar 13 12:38:49 6968 16081 H 0.4708 1.0028 24.1N 12.4E 62 11 00m17s
 ----- 19 3318 Mar 24 20:58:34 7139 16304 H 0.4924 1.0020 29.8N 113.4W 60 8 00m11s
 ----- 20 3336 Apr 04 05:11:35 7312 16527 H 0.5192 1.0014 35.8N 122.5E 59 6 00m08s
 ----- 21 3354 Apr 15 13:15:34 7488 16750 H 0.5527 1.0008 42.2N 0.9E 56 3 00m04s

----	22	3372	Apr 25	21:10:41	7665	16973	H	0.5929	1.0000	49.0N	118.1W	53	0	00m00s
----	23	3390	May 07	04:56:31	7845	17196	A	0.6403	0.9991	56.0N	126.0E	50	4	00m05s
----	24	3408	May 18	12:34:04	8026	17419	A	0.6939	0.9978	63.2N	13.6E	46	11	00m10s
----	25	3426	May 29	20:01:37	8210	17642	A	0.7550	0.9960	70.8N	93.3W	41	22	00m17s
----	26	3444	Jun 09	03:21:41	8395	17865	A	0.8213	0.9935	78.4N	170.0E	34	40	00m26s
----	27	3462	Jun 20	10:33:39	8583	18088	A	0.8934	0.9901	84.0N	116.7E	26	78	00m37s
----	28	3480	Jun 30	17:40:21	8773	18311	A	0.9687	0.9850	76.8N	85.2E	14	225	00m52s
----	29	3498	Jul 12	00:39:45	8965	18534	P	1.0491	0.8967	64.2N	5.2W	0		
----	30	3516	Jul 23	07:36:43	9159	18757	P	1.1302	0.7507	63.4N	118.0W	0		
----	31	3534	Aug 03	14:29:30	9355	18980	P	1.2138	0.6009	62.7N	130.5E	0		
----	32	3552	Aug 13	21:22:23	9553	19203	P	1.2959	0.4548	62.1N	19.1E	0		
----	33	3570	Aug 25	04:13:00	9754	19426	P	1.3788	0.3085	61.7N	91.5W	0		
----	34	3588	Sep 04	11:07:03	9956	19649	P	1.4577	0.1702	61.4N	157.0E	0		
----	35	3606	Sep 15	18:02:18	10160	19872	Pe	1.5347	0.0368	61.2N	45.4E	0		

SAROS SERIES

171

Saros series 171 contains 69 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
			GREATEST								°	km	
			ECLIPSE										
10443	-35	2391 Aug 01	11:14:32	1023	4843	Pb	1.4925	0.0766	69.6N	167.9E	0		
10487	-34	2409 Aug 11	18:38:31	1090	5066	P	1.4271	0.2021	70.4N	44.8E	0		
10530	-33	2427 Aug 23	02:04:51	1159	5289	P	1.3642	0.3222	71.1N	79.4W	0		
10573	-32	2445 Sep 02	09:35:13	1230	5512	P	1.3049	0.4344	71.7N	154.9E	0		
10616	-31	2463 Sep 13	17:10:28	1303	5735	P	1.2504	0.5367	72.0N	27.6E	0		
10658	-30	2481 Sep 24	00:49:51	1378	5958	P	1.1997	0.6307	72.1N	101.0W	0		
10700	-29	2499 Oct 05	08:36:23	1455	6181	P	1.1554	0.7119	71.9N	128.6E	0		
10741	-28	2517 Oct 16	16:28:59	1534	6404	P	1.1165	0.7823	71.6N	3.1W	0		
10782	-27	2535 Oct 28	00:29:34	1615	6627	P	1.0847	0.8388	70.9N	136.3W	0		
10822	-26	2553 Nov 07	08:35:22	1699	6850	P	1.0577	0.8858	70.2N	89.7E	0		
10862	-25	2571 Nov 18	16:49:14	1784	7073	P	1.0379	0.9196	69.2N	45.7W	0		
10902	-24	2589 Nov 29	01:08:10	1872	7296	P	1.0227	0.9447	68.2N	178.3E	0		
10943	-23	2607 Dec 11	09:32:40	1961	7519	P	1.0127	0.9607	67.1N	41.5E	0		
10984	-22	2625 Dec 21	18:00:12	2053	7742	P	1.0058	0.9710	66.1N	95.5W	0		
11024	-21	2644 Jan 02	02:31:07	2147	7965	A+	1.0021	0.9759	65.0N	127.1E	0		
11064	-20	2662 Jan 12	11:02:26	2242	8188	A+	0.9996	0.9787	64.1N	10.0W	0		
11105	-19	2680 Jan 23	19:32:56	2340	8411	An	0.9970	0.9636	62.1N	144.2W	2	-	02m46s
11147	-18	2698 Feb 03	04:01:19	2440	8634	An	0.9933	0.9625	59.1N	85.7E	5	-	02m52s
11189	-17	2716 Feb 15	12:26:26	2542	8857	An	0.9874	0.9617	57.4N	43.8W	8	-	02m55s
11232	-16	2734 Feb 25	20:45:26	2646	9080	A	0.9774	0.9615	56.2N	170.5W	11	674	02m55s
11275	-15	2752 Mar 08	04:57:54	2752	9303	A	0.9627	0.9618	55.6N	65.5E	15	511	02m52s
11320	-14	2770 Mar 19	13:02:32	2861	9526	A	0.9422	0.9624	55.6N	55.5W	19	401	02m48s
11365	-13	2788 Mar 29	20:59:26	2971	9749	A	0.9159	0.9633	56.3N	173.5W	23	326	02m43s

11410 -12 2806 Apr 10 04:45:31 3083 9972 A 0.8815 0.9643 57.3N 72.8E 28 269 02m39s
 11455 -11 2824 Apr 20 12:23:21 3198 10195 A 0.8410 0.9654 58.7N 37.5W 32 228 02m35s
 11500 -10 2842 May 01 19:50:36 3314 10418 A 0.7926 0.9664 59.9N 143.2W 37 197 02m33s
 11546 -09 2860 May 12 03:09:22 3433 10641 A 0.7377 0.9673 60.7N 114.9E 42 173 02m33s
 11592 -08 2878 May 23 10:17:43 3554 10864 A 0.6749 0.9679 60.3N 17.1E 47 156 02m36s
 11639 -07 2896 Jun 02 17:19:15 3676 11087 A 0.6071 0.9683 58.5N 79.0W 52 144 02m42s
 11686 -06 2914 Jun 15 00:12:40 3801 11310 A 0.5337 0.9681 55.2N 174.3W 57 136 02m52s
 11731 -05 2932 Jun 25 07:00:01 3928 11533 A 0.4557 0.9676 50.5N 90.0E 63 131 03m06s
 11775 -04 2950 Jul 06 13:42:14 4057 11756 A 0.3743 0.9665 44.7N 6.5W 68 130 03m25s
 11819 -03 2968 Jul 16 20:21:17 4188 11979 A 0.2909 0.9651 37.9N 104.0W 73 132 03m48s
 11863 -02 2986 Jul 28 02:58:21 4321 12202 A 0.2064 0.9630 30.6N 157.6E 78 137 04m16s
 ----- -01 3004 Aug 08 09:33:55 4456 12425 Am 0.1213 0.9606 22.8N 58.5E 83 144 04m46s
 ----- 00 3022 Aug 19 16:11:33 4593 12648 A 0.0388 0.9577 14.7N 41.8W 88 154 05m17s
 ----- 01 3040 Aug 29 22:50:53 4733 12871 A -0.0419 0.9544 6.4N 143.1W 88 167 05m48s
 ----- 02 3058 Sep 10 05:34:54 4874 13094 A -0.1183 0.9508 1.8S 114.2E 83 181 06m16s
 ----- 03 3076 Sep 20 12:23:07 5018 13317 A -0.1908 0.9470 10.0S 10.4E 79 199 06m41s
 ----- 04 3094 Oct 01 19:19:04 5163 13540 A -0.2565 0.9429 17.9S 95.3W 75 218 07m03s
 ----- 05 3112 Oct 13 02:21:06 5311 13763 A -0.3167 0.9389 25.6S 157.9E 71 239 07m21s
 ----- 06 3130 Oct 24 09:30:48 5460 13986 A -0.3703 0.9348 32.8S 49.8E 68 261 07m35s
 ----- 07 3148 Nov 03 16:48:25 5612 14209 A -0.4171 0.9310 39.4S 59.4W 65 284 07m45s
 ----- 08 3166 Nov 15 00:14:56 5766 14432 A -0.4565 0.9273 45.2S 169.6W 63 307 07m53s
 ----- 09 3184 Nov 25 07:49:01 5922 14655 A -0.4892 0.9241 50.0S 79.9E 60 329 07m58s
 ----- 10 3202 Dec 06 15:30:21 6080 14878 A -0.5159 0.9212 53.7S 30.7W 59 349 08m03s
 ----- 11 3220 Dec 16 23:18:23 6240 15101 A -0.5369 0.9188 55.8S 141.5W 57 366 08m06s
 ----- 12 3238 Dec 28 07:12:23 6402 15324 A -0.5531 0.9170 56.4S 106.8E 56 379 08m09s
 ----- 13 3257 Jan 07 15:09:29 6566 15547 A -0.5666 0.9159 55.5S 5.9W 55 388 08m11s
 ----- 14 3275 Jan 18 23:10:09 6732 15770 A -0.5773 0.9153 53.3S 120.7W 54 393 08m12s
 ----- 15 3293 Jan 29 07:11:00 6901 15993 A -0.5880 0.9154 50.4S 123.1E 54 395 08m11s

----- 16 3311 Feb 10 15:12:39 7071 16216 A -0.5981 0.9161 46.9S 5.2E 53 393 08m10s
 ----- 17 3329 Feb 20 23:10:12 7244 16439 A -0.6120 0.9175 43.4S 112.4W 52 390 08m07s
 ----- 18 3347 Mar 04 07:06:04 7418 16662 A -0.6273 0.9193 39.9S 129.5E 51 385 08m02s
 ----- 19 3365 Mar 14 14:55:20 7595 16885 A -0.6483 0.9217 36.9S 12.7E 49 380 07m56s
 ----- 20 3383 Mar 25 22:39:41 7773 17108 A -0.6736 0.9244 34.4S 103.1W 47 375 07m49s
 ----- 21 3401 Apr 06 06:15:19 7954 17331 A -0.7062 0.9274 32.9S 143.2E 45 374 07m39s
 ----- 22 3419 Apr 17 13:45:13 8137 17554 A -0.7437 0.9307 32.4S 30.8E 42 376 07m27s
 ----- 23 3437 Apr 27 21:06:24 8322 17777 A -0.7887 0.9339 33.4S 79.4W 38 390 07m11s
 ----- 24 3455 May 09 04:20:02 8509 18000 A -0.8399 0.9370 36.1S 172.3E 33 422 06m50s
 ----- 25 3473 May 19 11:25:43 8698 18223 A -0.8976 0.9396 41.1S 66.0E 26 501 06m23s
 ----- 26 3491 May 30 18:25:23 8889 18446 A -0.9603 0.9414 50.2S 38.1W 16 788 05m45s
 ----- 27 3509 Jun 11 01:18:38 9082 18669 P -1.0284 0.9169 65.3S 137.7W 0
 ----- 28 3527 Jun 22 08:07:09 9278 18892 P -1.1007 0.7935 66.2S 110.9E 0
 ----- 29 3545 Jul 02 14:52:13 9475 19115 P -1.1760 0.6638 67.3S 0.1W 0
 ----- 30 3563 Jul 13 21:35:44 9674 19338 P -1.2524 0.5310 68.3S 111.2W 0
 ----- 31 3581 Jul 24 04:17:26 9876 19561 P -1.3306 0.3943 69.2S 137.7E 0
 ----- 32 3599 Aug 04 11:00:40 10079 19784 P -1.4079 0.2583 70.1S 25.7E 0
 ----- 33 3617 Aug 14 17:45:23 10285 20007 Pe -1.4842 0.1235 70.9S 87.3W 0

SAROS SERIES

172

Saros series 172 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
10642	-32	2474 Aug 13	02:43:56	1348	5870	Pb	-1.4827	0.1379	62.1S	85.2E	0		
10684	-31	2492 Aug 23	09:17:49	1424	6093	P	-1.4043	0.2723	61.6S	21.8W	0		
10726	-30	2510 Sep 04	15:56:49	1503	6316	P	-1.3292	0.4003	61.2S	130.0W	0		
10766	-29	2528 Sep 14	22:42:54	1583	6539	P	-1.2592	0.5192	61.0S	120.2E	0		
10806	-28	2546 Sep 26	05:36:28	1666	6762	P	-1.1945	0.6285	61.0S	8.5E	0		
10846	-27	2564 Oct 06	12:38:14	1750	6985	P	-1.1361	0.7266	61.1S	105.2W	0		
10886	-26	2582 Oct 17	19:49:11	1837	7208	P	-1.0846	0.8128	61.4S	138.8E	0		
10927	-25	2600 Oct 29	03:09:34	1926	7431	P	-1.0403	0.8863	61.8S	20.3E	0		
10968	-24	2618 Nov 09	10:39:32	2016	7654	A-	-1.0033	0.9474	62.4S	100.7W	0		
11009	-23	2636 Nov 19	18:16:59	2109	7877	As	-0.9719	0.9164	70.9S	163.3E	13	-	05m33s
11048	-22	2654 Dec 01	02:03:29	2204	8100	A	-0.9477	0.9165	75.8S	53.4E	18	1021	05m41s
11089	-21	2672 Dec 11	09:56:21	2301	8323	A	-0.9286	0.9165	80.5S	59.4W	21	874	05m47s
11130	-20	2690 Dec 22	17:55:30	2401	8546	A	-0.9140	0.9168	85.1S	166.7W	23	795	05m52s
11172	-19	2709 Jan 03	01:57:50	2502	8769	A	-0.9017	0.9175	87.5S	147.9E	25	737	05m55s
11214	-18	2727 Jan 14	10:03:51	2605	8992	A	-0.8920	0.9189	83.8S	75.5E	26	691	05m57s
11257	-17	2745 Jan 24	18:10:38	2710	9215	A	-0.8825	0.9207	78.8S	40.0W	28	646	05m58s
11302	-16	2763 Feb 05	02:16:47	2818	9438	A	-0.8721	0.9233	73.6S	162.2W	29	596	05m58s
11347	-15	2781 Feb 15	10:20:50	2927	9661	A	-0.8595	0.9265	68.1S	74.0E	30	543	05m57s
11392	-14	2799 Feb 26	18:21:15	3039	9884	A	-0.8432	0.9304	62.3S	49.8W	32	484	05m54s
11437	-13	2817 Mar 09	02:16:54	3152	10107	A	-0.8224	0.9348	56.2S	172.9W	34	425	05m49s
11482	-12	2835 Mar 20	10:06:06	3268	10330	A	-0.7955	0.9398	49.7S	65.6E	37	365	05m41s

11528 -11 2853 Mar 30 17:49:21 3386 10553 A -0.7631 0.9452 43.1S 54.2W 40 309 05m29s
 11574 -10 2871 Apr 11 01:25:37 3506 10776 A -0.7242 0.9510 36.3S 172.1W 43 258 05m12s
 11621 -09 2889 Apr 21 08:53:56 3628 10999 A -0.6779 0.9570 29.3S 72.4E 47 211 04m49s
 11668 -08 2907 May 03 16:15:29 3752 11222 A -0.6251 0.9632 22.4S 40.9W 51 170 04m20s
 11713 -07 2925 May 13 23:30:12 3878 11445 A -0.5657 0.9693 15.6S 152.0W 55 133 03m45s
 11758 -06 2943 May 25 06:39:59 4006 11668 A -0.5014 0.9753 9.2S 98.8E 60 102 03m04s
 11802 -05 2961 Jun 04 13:43:19 4136 11891 A -0.4308 0.9811 3.1S 8.2W 64 74 02m21s
 11846 -04 2979 Jun 15 20:44:09 4268 12114 A -0.3570 0.9866 2.4N 113.9W 69 51 01m39s
 11891 -03 2997 Jun 26 03:41:44 4403 12337 A -0.2793 0.9916 7.2N 141.9E 74 31 01m00s
 ----- -02 3015 Jul 08 10:38:31 4539 12560 A -0.2000 0.9962 11.1N 38.6E 79 13 00m26s
 ----- -01 3033 Jul 18 17:34:19 4678 12783 H -0.1189 1.0002 14.2N 63.9W 83 1 00m02s
 ----- 00 3051 Jul 30 00:32:40 4818 13006 H -0.0389 1.0038 16.4N 166.7W 88 13 00m23s
 ----- 01 3069 Aug 09 07:33:40 4961 13229 H 0.0402 1.0066 17.7N 90.1E 88 23 00m39s
 ----- 02 3087 Aug 20 14:38:16 5105 13452 H 0.1173 1.0090 18.2N 13.9W 83 31 00m52s
 ----- 03 3105 Aug 31 21:48:37 5252 13675 Hm 0.1905 1.0107 18.1N 119.4W 79 37 01m00s
 ----- 04 3123 Sep 12 05:05:12 5401 13898 H 0.2593 1.0119 17.5N 133.2E 75 42 01m06s
 ----- 05 3141 Sep 22 12:29:56 5552 14121 H 0.3222 1.0127 16.6N 23.5E 71 46 01m10s
 ----- 06 3159 Oct 03 20:01:00 5705 14344 H 0.3806 1.0131 15.6N 88.1W 68 48 01m12s
 ----- 07 3177 Oct 14 03:42:10 5860 14567 H 0.4314 1.0131 14.6N 157.4E 64 49 01m13s
 ----- 08 3195 Oct 25 11:30:55 6017 14790 H 0.4766 1.0130 13.7N 40.7E 61 50 01m14s
 ----- 09 3213 Nov 04 19:29:34 6176 15013 H 0.5140 1.0128 13.1N 78.9W 59 51 01m15s
 ----- 10 3231 Nov 16 03:35:54 6338 15236 H 0.5457 1.0125 12.8N 159.4E 57 51 01m15s
 ----- 11 3249 Nov 26 11:52:09 6501 15459 H 0.5697 1.0124 12.7N 34.9E 55 52 01m16s
 ----- 12 3267 Dec 07 20:15:14 6667 15682 H 0.5886 1.0126 13.0N 91.5W 54 53 01m18s
 ----- 13 3285 Dec 18 04:45:16 6834 15905 H 0.6025 1.0131 13.7N 140.1E 53 56 01m22s
 ----- 14 3303 Dec 30 13:20:44 7004 16128 H2 0.6124 1.0139 14.8N 10.3E 52 60 01m27s
 ----- 15 3322 Jan 09 22:01:36 7175 16351 T 0.6181 1.0152 16.3N 120.9W 52 66 01m33s
 ----- 16 3340 Jan 21 06:44:20 7349 16574 T 0.6231 1.0169 18.5N 107.2E 51 74 01m42s

-----	17	3358	Jan 31	15:28:59	7525	16797	T	0.6271	1.0191	21.2N	25.1W	51	84	01m52s
-----	18	3376	Feb 12	00:12:54	7703	17020	T	0.6320	1.0219	24.5N	157.4W	51	96	02m03s
-----	19	3394	Feb 22	08:56:29	7883	17243	T	0.6379	1.0250	28.3N	70.4E	50	110	02m15s
-----	20	3412	Mar 05	17:35:08	8065	17466	T	0.6481	1.0286	32.8N	60.8W	49	126	02m28s
-----	21	3430	Mar 17	02:11:09	8249	17689	T	0.6611	1.0324	37.8N	168.7E	48	145	02m40s
-----	22	3448	Mar 27	10:40:10	8435	17912	T	0.6803	1.0364	43.4N	39.9E	47	166	02m50s
-----	23	3466	Apr 07	19:04:43	8623	18135	T	0.7036	1.0405	49.4N	87.8W	45	190	03m00s
-----	24	3484	Apr 18	03:20:27	8813	18358	T	0.7345	1.0446	56.0N	146.6E	42	219	03m07s
-----	25	3502	Apr 30	11:31:27	9006	18581	T	0.7698	1.0484	63.0N	22.5E	39	253	03m12s
-----	26	3520	May 10	19:33:57	9200	18804	T	0.8125	1.0519	70.5N	99.7W	35	297	03m13s
-----	27	3538	May 22	03:30:38	9397	19027	T	0.8605	1.0548	78.6N	138.8E	30	359	03m11s
-----	28	3556	Jun 01	11:20:04	9595	19250	T	0.9150	1.0567	87.7N	3.9W	23	473	03m03s
-----	29	3574	Jun 12	19:05:04	9796	19473	T	0.9734	1.0568	79.2N	102.9E	12	873	02m48s
-----	30	3592	Jun 23	02:44:56	9999	19696	P	1.0364	0.9520	65.9N	15.2W			0
-----	31	3610	Jul 04	10:20:54	10203	19919	P	1.1029	0.8244	64.9N	138.2W			0
-----	32	3628	Jul 14	17:54:19	10410	20142	P	1.1719	0.6911	64.1N	99.7E			0
-----	33	3646	Jul 26	01:26:24	10619	20365	P	1.2422	0.5547	63.3N	21.8W			0
-----	34	3664	Aug 05	08:57:22	10830	20588	P	1.3134	0.4164	62.7N	142.8W			0
-----	35	3682	Aug 16	16:28:48	11043	20811	P	1.3841	0.2790	62.1N	96.2E			0
-----	36	3700	Aug 28	00:02:14	11259	21034	P	1.4532	0.1451	61.8N	25.1W			0
-----	37	3718	Sep 08	07:38:42	11476	21257	Pe	1.5198	0.0165	61.5N	147.1W			0

SAROS SERIES

Saros series 173 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													

10667	-35	2485	Jul 12	09:35:02	1394	6005	Pb	1.4713	0.1259	68.0N	145.3W	0	
10709	-34	2503	Jul 24	16:46:37	1471	6228	P	1.3926	0.2716	69.0N	95.8E	0	
10750	-33	2521	Aug 04	00:02:18	1551	6451	P	1.3160	0.4141	69.9N	24.8W	0	
10791	-32	2539	Aug 15	07:21:01	1633	6674	P	1.2408	0.5548	70.8N	146.7W	0	
10831	-31	2557	Aug 25	14:46:39	1717	6897	P	1.1703	0.6870	71.4N	89.1E	0	
10871	-30	2575	Sep 05	22:17:41	1802	7120	P	1.1036	0.8125	71.9N	37.0W	0	
10911	-29	2593	Sep 16	05:55:38	1890	7343	P	1.0418	0.9285	72.2N	165.1W	0	
10952	-28	2611	Sep 28	13:41:25	1980	7566	T	0.9859	1.0280	69.6N	39.6E	9 630	01m42s
10993	-27	2629	Oct 08	21:35:29	2072	7789	T	0.9363	1.0312	59.0N	106.3W	20 302	02m10s
11033	-26	2647	Oct 20	05:38:03	2167	8012	T	0.8932	1.0324	50.5N	122.8E	26 243	02m27s
11073	-25	2665	Oct 30	13:48:30	2263	8235	T	0.8563	1.0330	43.6N	6.1W	31 215	02m40s
11114	-24	2683	Nov 10	22:07:55	2361	8458	T	0.8266	1.0331	37.9N	135.4W	34 198	02m49s
11156	-23	2701	Nov 22	06:34:43	2462	8681	T	0.8026	1.0331	33.3N	94.4E	36 187	02m56s
11198	-22	2719	Dec 03	15:08:00	2564	8904	T	0.7837	1.0331	29.9N	36.8W	38 180	03m01s
11240	-21	2737	Dec 13	23:47:43	2668	9127	T	0.7697	1.0332	27.4N	169.3W	39 176	03m03s
11283	-20	2755	Dec 25	08:32:19	2775	9350	T	0.7595	1.0335	26.0N	57.3E	40 174	03m05s
11328	-19	2774	Jan 04	17:20:31	2884	9573	T	0.7521	1.0342	25.4N	76.9W	41 174	03m07s

11374 -18 2792 Jan 16 02:09:57 2995 9796 T 0.7454 1.0353 25.6N 148.8E 42 177 03m09s
 11419 -17 2810 Jan 26 11:00:54 3107 10019 T 0.7398 1.0369 26.5N 14.1E 42 182 03m11s
 11464 -16 2828 Feb 06 19:50:44 3222 10242 T 0.7327 1.0388 28.0N 120.3W 43 188 03m15s
 11510 -15 2846 Feb 17 04:37:38 3339 10465 T 0.7233 1.0413 29.8N 106.3E 43 196 03m20s
 11556 -14 2864 Feb 28 13:20:36 3458 10688 T 0.7105 1.0442 32.0N 25.8W 45 205 03m26s
 11602 -13 2882 Mar 10 21:58:32 3579 10911 T 0.6934 1.0475 34.4N 156.2W 46 215 03m34s
 11649 -12 2900 Mar 22 06:30:52 3702 11134 T 0.6716 1.0510 36.9N 75.3E 48 224 03m44s
 11695 -11 2918 Apr 02 14:55:22 3828 11357 T 0.6433 1.0547 39.3N 50.4W 50 233 03m55s
 11740 -10 2936 Apr 12 23:13:37 3955 11580 T 0.6097 1.0584 41.6N 173.6W 52 240 04m08s
 11784 -09 2954 Apr 24 07:23:39 4084 11803 T 0.5696 1.0622 43.6N 66.2E 55 246 04m23s
 11828 -08 2972 May 04 15:26:42 4216 12026 T 0.5235 1.0657 45.0N 51.1W 58 251 04m40s
 11872 -07 2990 May 15 23:22:03 4349 12249 T 0.4710 1.0689 45.4N 165.7W 62 254 04m58s
 ----- -06 3008 May 27 07:11:30 4485 12472 T 0.4136 1.0716 44.8N 81.7E 65 256 05m18s
 ----- -05 3026 Jun 07 14:55:11 4623 12695 T 0.3514 1.0738 43.0N 29.6W 69 256 05m38s
 ----- -04 3044 Jun 17 22:33:14 4762 12918 T 0.2846 1.0754 39.9N 140.0W 73 255 05m58s
 ----- -03 3062 Jun 29 06:07:48 4904 13141 T 0.2150 1.0762 35.7N 109.4E 77 253 06m16s
 ----- -02 3080 Jul 09 13:38:50 5048 13364 T 0.1427 1.0762 30.4N 1.3W 82 249 06m31s
 ----- -01 3098 Jul 20 21:08:34 5194 13587 T 0.0692 1.0755 24.3N 112.8W 86 245 06m40s
 ----- 00 3116 Aug 01 04:36:29 5342 13810 Tm -0.0053 1.0739 17.5N 135.3E 90 240 06m41s
 ----- 01 3134 Aug 12 12:05:48 5492 14033 T -0.0784 1.0715 10.4N 22.3E 86 233 06m35s
 ----- 02 3152 Aug 22 19:36:07 5644 14256 T -0.1499 1.0683 2.9N 91.5W 81 225 06m19s
 ----- 03 3170 Sep 03 03:09:08 5799 14479 T -0.2189 1.0646 4.8S 153.6E 77 216 05m56s
 ----- 04 3188 Sep 13 10:45:34 5955 14702 T -0.2844 1.0601 12.6S 37.8E 73 205 05m27s
 ----- 05 3206 Sep 24 18:26:50 6113 14925 T -0.3455 1.0551 20.2S 79.3W 70 193 04m54s
 ----- 06 3224 Oct 05 02:13:39 6274 15148 T -0.4010 1.0497 27.7S 162.4E 66 180 04m18s
 ----- 07 3242 Oct 16 10:05:20 6436 15371 T -0.4519 1.0441 35.0S 43.3E 63 164 03m42s
 ----- 08 3260 Oct 26 18:04:36 6601 15594 T -0.4959 1.0382 41.8S 76.8W 60 147 03m06s
 ----- 09 3278 Nov 07 02:09:51 6768 15817 T -0.5346 1.0324 48.0S 162.7E 57 129 02m33s

----- 10 3296 Nov 17 10:23:03 6936 16040 T -0.5661 1.0266 53.4S 41.8E 55 110 02m03s
 ----- 11 3314 Nov 29 18:41:23 7107 16263 T -0.5930 1.0211 57.9S 78.2W 53 90 01m35s
 ----- 12 3332 Dec 10 03:07:09 7280 16486 T -0.6132 1.0159 60.8S 162.1E 52 69 01m11s
 ----- 13 3350 Dec 21 11:36:58 7455 16709 H -0.6297 1.0111 62.3S 43.0E 51 49 00m49s
 ----- 14 3368 Dec 31 20:11:34 7632 16932 H -0.6419 1.0067 61.9S 77.0W 50 31 00m30s
 ----- 15 3387 Jan 12 04:48:21 7811 17155 H -0.6520 1.0029 60.2S 161.1E 49 13 00m13s
 ----- 16 3405 Jan 23 13:27:37 7993 17378 A -0.6597 0.9996 57.2S 36.7E 48 2 00m02s
 ----- 17 3423 Feb 03 22:05:50 8176 17601 A -0.6677 0.9969 53.7S 89.4W 48 15 00m14s
 ----- 18 3441 Feb 14 06:42:33 8361 17824 A -0.6765 0.9946 50.0S 143.5E 47 25 00m25s
 ----- 19 3459 Feb 25 15:15:44 8549 18047 A -0.6877 0.9928 46.2S 16.3E 46 34 00m34s
 ----- 20 3477 Mar 07 23:45:07 8738 18270 A -0.7016 0.9913 42.8S 110.6W 45 42 00m42s
 ----- 21 3495 Mar 19 08:06:50 8930 18493 A -0.7213 0.9901 39.9S 124.1E 44 49 00m49s
 ----- 22 3513 Mar 30 16:22:23 9123 18716 A -0.7452 0.9891 37.7S 0.1E 42 56 00m56s
 ----- 23 3531 Apr 11 00:28:48 9319 18939 A -0.7761 0.9881 36.7S 121.5W 39 65 01m02s
 ----- 24 3549 Apr 21 08:28:09 9517 19162 A -0.8122 0.9870 36.8S 118.6E 35 76 01m10s
 ----- 25 3567 May 02 16:15:57 9717 19385 A -0.8570 0.9856 38.8S 1.7E 31 96 01m18s
 ----- 26 3585 May 12 23:56:47 9918 19608 A -0.9069 0.9838 42.8S 113.2W 25 135 01m28s
 ----- 27 3603 May 24 07:26:42 10122 19831 A -0.9647 0.9806 51.1S 136.0E 15 265 01m40s
 ----- 28 3621 Jun 03 14:49:36 10328 20054 P -1.0275 0.9340 64.7S 30.6E 0
 ----- 29 3639 Jun 14 22:02:41 10537 20277 P -1.0975 0.8085 65.7S 86.6W 0
 ----- 30 3657 Jun 25 05:10:20 10747 20500 P -1.1707 0.6774 66.7S 157.1E 0
 ----- 31 3675 Jul 06 12:10:48 10959 20723 P -1.2486 0.5385 67.7S 42.2E 0
 ----- 32 3693 Jul 16 19:06:25 11173 20946 P -1.3292 0.3951 68.7S 72.0W 0
 ----- 33 3711 Jul 29 01:57:44 11390 21169 P -1.4119 0.2489 69.7S 174.3E 0
 ----- 34 3729 Aug 08 08:46:50 11608 21392 Pe -1.4950 0.1028 70.5S 60.6E 0

SAROS SERIES

174

Saros series 174 contains 69 solar eclipses.

SEQ.	REL.	CALENDAR	TD	Δ T	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
10775	-35	2532 Jul 04	08:54:58	1600	6586	Pb	-1.4782	0.1040	64.9S	27.8E	0		
10815	-34	2550 Jul 15	16:14:58	1683	6809	P	-1.4089	0.2366	64.0S	91.6W	0		
10855	-33	2568 Jul 25	23:36:01	1768	7032	P	-1.3408	0.3666	63.3S	149.0E	0		
10895	-32	2586 Aug 06	06:55:48	1855	7255	P	-1.2718	0.4975	62.6S	30.2E	0		
10936	-31	2604 Aug 17	14:18:38	1945	7478	P	-1.2058	0.6216	62.0S	89.1W	0		
10977	-30	2622 Aug 28	21:41:59	2036	7701	P	-1.1408	0.7425	61.6S	151.5E	0		
11017	-29	2640 Sep 08	05:10:48	2129	7924	P	-1.0807	0.8532	61.3S	30.9E	0		
11057	-28	2658 Sep 19	12:42:52	2225	8147	P	-1.0239	0.9564	61.1S	90.4W	0		
11098	-27	2676 Sep 29	20:20:52	2322	8370	T	-0.9725	1.0089	60.1S	173.0E	13	134	00m33s
11140	-26	2694 Oct 11	04:04:20	2422	8593	H	-0.9263	1.0054	59.5S	67.4E	22	49	00m21s
11182	-25	2712 Oct 22	11:55:16	2523	8816	H	-0.8873	1.0009	60.7S	45.3W	27	6	00m03s
11224	-24	2730 Nov 02	19:52:57	2627	9039	A	-0.8541	0.9959	62.8S	160.6W	31	28	00m17s
11267	-23	2748 Nov 13	03:56:37	2733	9262	A	-0.8266	0.9908	65.5S	83.1E	34	57	00m37s
11312	-22	2766 Nov 24	12:07:07	2841	9485	A	-0.8054	0.9858	68.4S	33.6W	36	85	00m59s

11356 -21 2784 Dec 04 20:23:18 2951 9708 A -0.7896 0.9810 71.2S 149.1W 38 110 01m19s
 11401 -20 2802 Dec 16 04:44:25 3063 9931 A -0.7785 0.9765 73.1S 97.6E 39 134 01m39s
 11446 -19 2820 Dec 26 13:08:54 3177 10154 A -0.7709 0.9725 73.7S 13.7W 39 156 01m59s
 11491 -18 2839 Jan 06 21:36:05 3293 10377 A -0.7660 0.9690 72.6S 126.1W 40 175 02m17s
 11537 -17 2857 Jan 17 06:04:05 3411 10600 A -0.7626 0.9660 70.0S 117.8E 40 191 02m34s
 11584 -16 2875 Jan 28 14:30:34 3531 10823 A -0.7588 0.9636 66.3S 2.2W 40 203 02m49s
 11631 -15 2893 Feb 07 22:54:55 3654 11046 A -0.7539 0.9617 61.9S 125.1W 41 211 03m04s
 11678 -14 2911 Feb 20 07:15:04 3778 11269 A -0.7465 0.9604 57.0S 110.7E 41 215 03m19s
 11723 -13 2929 Mar 02 15:29:16 3905 11492 A -0.7349 0.9597 51.7S 13.5W 42 214 03m32s
 11767 -12 2947 Mar 13 23:36:01 4033 11715 A -0.7178 0.9594 46.1S 137.0W 44 210 03m46s
 11811 -11 2965 Mar 24 07:35:07 4164 11938 A -0.6953 0.9595 40.2S 100.9E 46 202 03m58s
 11855 -10 2983 Apr 04 15:25:41 4296 12161 A -0.6666 0.9599 34.1S 19.3W 48 193 04m11s
 ----- -09 3001 Apr 15 23:05:33 4431 12384 A -0.6296 0.9606 27.8S 136.9W 51 183 04m22s
 ----- -08 3019 Apr 27 06:36:40 4568 12607 A -0.5861 0.9612 21.4S 107.8E 54 172 04m34s
 ----- -07 3037 May 07 13:57:30 4707 12830 A -0.5345 0.9619 15.0S 4.5W 58 163 04m42s
 ----- -06 3055 May 18 21:10:11 4848 13053 A -0.4769 0.9625 8.7S 114.4W 61 154 04m50s
 ----- -05 3073 May 29 04:12:32 4991 13276 A -0.4112 0.9629 2.6S 138.8E 66 147 04m54s
 ----- -04 3091 Jun 09 11:08:43 5136 13499 A -0.3409 0.9629 3.0N 34.2E 70 143 04m56s
 ----- -03 3109 Jun 20 17:57:04 5283 13722 A -0.2644 0.9626 8.1N 67.7W 75 140 04m55s
 ----- -02 3127 Jul 02 00:39:48 5433 13945 A -0.1839 0.9620 12.5N 167.6W 79 140 04m52s
 ----- -01 3145 Jul 12 07:17:33 5584 14168 Am -0.0997 0.9608 16.3N 94.5E 84 143 04m50s
 ----- 00 3163 Jul 23 13:52:56 5738 14391 A -0.0141 0.9593 19.1N 2.3W 89 148 04m50s
 ----- 01 3181 Aug 02 20:26:50 5893 14614 A 0.0723 0.9572 21.2N 98.3W 86 156 04m53s
 ----- 02 3199 Aug 14 02:59:58 6051 14837 A 0.1588 0.9547 22.5N 166.1E 81 167 05m00s
 ----- 03 3217 Aug 24 09:35:12 6210 15060 A 0.2430 0.9519 23.2N 70.0E 76 181 05m13s
 ----- 04 3235 Sep 04 16:13:17 6372 15283 A 0.3244 0.9486 23.4N 27.0W 71 198 05m30s
 ----- 05 3253 Sep 14 22:55:41 6536 15506 A 0.4016 0.9451 23.3N 125.3W 66 218 05m52s
 ----- 06 3271 Sep 26 05:43:07 6702 15729 A 0.4743 0.9413 23.2N 134.7E 62 243 06m21s

-----	07	3289	Oct 06	12:37:52	6870	15952	A	0.5408	0.9375	23.1N	32.5E	57	270	06m54s
-----	08	3307	Oct 18	19:40:05	7040	16175	A	0.6008	0.9335	23.3N	72.0W	53	303	07m33s
-----	09	3325	Oct 29	02:49:39	7212	16398	A	0.6545	0.9297	23.8N	178.9W	49	340	08m14s
-----	10	3343	Nov 09	10:08:29	7386	16621	A	0.7003	0.9259	24.7N	71.3E	45	381	08m56s
-----	11	3361	Nov 19	17:35:39	7562	16844	A	0.7389	0.9225	26.0N	41.1W	42	426	09m36s
-----	12	3379	Dec 01	01:11:52	7740	17067	A	0.7703	0.9195	27.5N	156.3W	39	473	10m11s
-----	13	3397	Dec 11	08:53:43	7921	17290	A	0.7971	0.9169	29.5N	86.6E	37	520	10m36s
-----	14	3415	Dec 23	16:44:00	8103	17513	A	0.8167	0.9149	31.5N	33.0W	35	562	10m51s
-----	15	3434	Jan 03	00:38:28	8288	17736	A	0.8327	0.9134	33.9N	154.1W	33	599	10m52s
-----	16	3452	Jan 14	08:38:04	8474	17959	A	0.8446	0.9126	36.5N	83.2E	32	625	10m42s
-----	17	3470	Jan 24	16:38:42	8663	18182	A	0.8554	0.9124	39.5N	40.1W	31	646	10m19s
-----	18	3488	Feb 05	00:41:42	8854	18405	A	0.8645	0.9129	42.8N	164.1W	30	659	09m48s
-----	19	3506	Feb 16	08:42:57	9047	18628	A	0.8749	0.9140	46.7N	71.8E	29	674	09m09s
-----	20	3524	Feb 27	16:42:15	9241	18851	A	0.8870	0.9156	51.1N	52.3W	27	692	08m26s
-----	21	3542	Mar 10	00:37:10	9438	19074	A	0.9028	0.9176	56.2N	176.4W	25	725	07m40s
-----	22	3560	Mar 20	08:27:58	9637	19297	A	0.9221	0.9200	61.9N	58.6E	22	784	06m54s
-----	23	3578	Mar 31	16:11:32	9839	19520	A	0.9475	0.9225	68.3N	70.2W	18	930	06m07s
-----	24	3596	Apr 10	23:48:56	10042	19743	An	0.9784	0.9246	74.0N	145.6E	11	-	05m21s
-----	25	3614	Apr 22	07:18:30	10247	19966	A+	1.0159	0.9309	71.3N	17.2W	0		
-----	26	3632	May 02	14:41:58	10454	20189	P	1.0588	0.8600	70.5N	140.1W	0		
-----	27	3650	May 13	21:55:59	10664	20412	P	1.1096	0.7748	69.6N	100.0E	0		
-----	28	3668	May 24	05:04:56	10875	20635	P	1.1650	0.6810	68.6N	18.0W	0		
-----	29	3686	Jun 04	12:06:06	11089	20858	P	1.2272	0.5745	67.6N	133.4W	0		
-----	30	3704	Jun 15	19:03:50	11304	21081	P	1.2922	0.4620	66.5N	112.5E	0		
-----	31	3722	Jun 27	01:54:49	11522	21304	P	1.3630	0.3384	65.6N	0.5E	0		
-----	32	3740	Jul 07	08:45:11	11742	21527	P	1.4346	0.2124	64.7N	110.9W	0		
-----	33	3758	Jul 18	15:31:56	11963	21750	Pe	1.5095	0.0797	63.8N	138.9E	0		

SAROS SERIES

175

Saros series 175 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													
10920	-33	2597 Jul 05	17:53:16	1909	7390	Pb	1.5370	0.0437	67.4N	99.2E	0		
10961	-32	2615 Jul 18	00:19:58	2000	7613	P	1.4533	0.1869	68.4N	8.1W	0		
11002	-31	2633 Jul 28	06:45:14	2092	7836	P	1.3679	0.3330	69.4N	115.6W	0		
11041	-30	2651 Aug 08	13:13:27	2187	8059	P	1.2844	0.4757	70.3N	135.6E	0		
11082	-29	2669 Aug 18	19:43:41	2283	8282	P	1.2020	0.6161	71.1N	25.7E	0		
11123	-28	2687 Aug 30	02:19:46	2382	8505	P	1.1238	0.7490	71.7N	86.2W	0		
11165	-27	2705 Sep 10	08:59:54	2483	8728	P	1.0484	0.8767	72.2N	160.4E	0		
11207	-26	2723 Sep 21	15:48:55	2586	8951	An	0.9799	0.9291	70.0N	12.0E	11	-	05m24s
11250	-25	2741 Oct 01	22:44:42	2691	9174	A	0.9163	0.9303	58.5N	120.9W	23	652	06m14s
11293	-24	2759 Oct 13	05:50:16	2798	9397	A	0.8601	0.9301	49.0N	122.5E	30	509	07m00s
11338	-23	2777 Oct 23	13:04:19	2907	9620	A	0.8102	0.9294	40.9N	7.9E	36	448	07m45s

11383	-22	2795	Nov 03	20:29:04	3018	9843	A	0.7683	0.9285	34.2N	107.5W	40	416	08m26s
11428	-21	2813	Nov 14	04:02:23	3131	10066	A	0.7331	0.9276	28.6N	136.0E	43	398	09m04s
11473	-20	2831	Nov 25	11:44:06	3247	10289	A	0.7040	0.9270	24.1N	18.1E	45	386	09m32s
11519	-19	2849	Dec 05	19:34:20	3364	10512	A	0.6814	0.9266	20.7N	101.4W	47	377	09m51s
11565	-18	2867	Dec 17	03:31:29	3484	10735	A	0.6635	0.9266	18.4N	137.7E	48	369	09m55s
11612	-17	2885	Dec 27	11:34:23	3605	10958	A	0.6500	0.9270	17.1N	15.6E	49	360	09m46s
11659	-16	2904	Jan 08	19:40:31	3729	11181	A	0.6386	0.9281	16.7N	107.2W	50	348	09m24s
11705	-15	2922	Jan 19	03:50:04	3854	11404	A	0.6295	0.9296	17.2N	129.3E	51	335	08m53s
11750	-14	2940	Jan 30	11:59:57	3982	11627	A	0.6198	0.9319	18.3N	5.8E	52	319	08m15s
11794	-13	2958	Feb 09	20:08:50	4112	11850	A	0.6088	0.9347	20.0N	117.4W	52	301	07m33s
11838	-12	2976	Feb 21	04:15:07	4244	12073	A	0.5951	0.9382	22.1N	120.2E	53	279	06m49s
11882	-11	2994	Mar 03	12:17:48	4378	12296	A	0.5777	0.9422	24.5N	1.0W	55	256	06m06s
----	-10	3012	Mar 14	20:15:28	4514	12519	A	0.5556	0.9469	27.1N	120.6W	56	231	05m24s
----	-09	3030	Mar 26	04:06:54	4652	12742	A	0.5274	0.9519	29.6N	121.9E	58	204	04m45s
----	-08	3048	Apr 05	11:52:11	4792	12965	A	0.4933	0.9575	32.0N	6.6E	60	176	04m06s
----	-07	3066	Apr 16	19:30:46	4934	13188	A	0.4529	0.9632	34.1N	106.4W	63	148	03m31s
----	-06	3084	Apr 27	03:01:50	5079	13411	A	0.4054	0.9692	35.6N	143.3E	66	120	02m56s
----	-05	3102	May 09	10:26:36	5225	13634	A	0.3518	0.9752	36.3N	35.3E	69	94	02m23s
----	-04	3120	May 19	17:44:57	5374	13857	A	0.2920	0.9812	36.1N	70.8W	73	70	01m50s
----	-03	3138	May 31	00:58:59	5524	14080	A	0.2276	0.9870	34.7N	175.7W	77	47	01m18s
----	-02	3156	Jun 10	08:06:40	5677	14303	A	0.1571	0.9927	32.0N	80.7E	81	26	00m46s
----	-01	3174	Jun 21	15:12:22	5831	14526	A	0.0842	0.9978	28.3N	23.2W	85	8	00m14s
----	00	3192	Jul 01	22:14:22	5988	14749	H	0.0075	1.0026	23.4N	126.9W	89	9	00m17s
----	01	3210	Jul 13	05:16:37	6147	14972	H	-0.0699	1.0069	17.6N	128.4E	86	24	00m46s
----	02	3228	Jul 23	12:17:27	6308	15195	Hm	-0.1493	1.0106	11.1N	23.2E	81	37	01m11s
----	03	3246	Aug 03	19:21:42	6471	15418	H	-0.2267	1.0136	4.0N	83.6W	77	48	01m31s
----	04	3264	Aug 14	02:28:00	6636	15641	H2	-0.3029	1.0161	3.5S	168.4E	72	58	01m45s
----	05	3282	Aug 25	09:38:51	6803	15864	T	-0.3761	1.0180	11.3S	58.8E	68	66	01m53s

----- 06 3300 Sep 05 16:54:28 6972 16087 T -0.4462 1.0192 19.3S 52.3W 63 73 01m55s
 ----- 07 3318 Sep 17 00:17:10 7144 16310 T -0.5112 1.0200 27.3S 165.4W 59 79 01m53s
 ----- 08 3336 Sep 27 07:46:54 7317 16533 T -0.5710 1.0202 35.3S 79.6E 55 84 01m48s
 ----- 09 3354 Oct 08 15:24:22 7492 16756 T -0.6252 1.0201 43.1S 37.1W 51 87 01m40s
 ----- 10 3372 Oct 18 23:10:32 7670 16979 T -0.6728 1.0196 50.6S 155.7W 47 90 01m32s
 ----- 11 3390 Oct 30 07:05:43 7849 17202 T -0.7138 1.0190 57.7S 84.4E 44 93 01m24s
 ----- 12 3408 Nov 10 15:09:24 8031 17425 T -0.7485 1.0183 64.4S 36.1W 41 95 01m17s
 ----- 13 3426 Nov 21 23:21:50 8215 17648 T -0.7766 1.0177 70.2S 155.8W 39 97 01m11s
 ----- 14 3444 Dec 02 07:42:07 8400 17871 T -0.7989 1.0172 75.0S 88.1E 37 99 01m07s
 ----- 15 3462 Dec 13 16:10:14 8588 18094 T -0.8153 1.0170 77.8S 21.6W 35 101 01m04s
 ----- 16 3480 Dec 24 00:43:17 8778 18317 T -0.8282 1.0171 78.0S 127.8W 34 106 01m04s
 ----- 17 3499 Jan 04 09:23:01 8970 18540 T -0.8363 1.0177 75.7S 118.4E 33 111 01m05s
 ----- 18 3517 Jan 15 18:05:40 9164 18763 T -0.8428 1.0187 72.1S 3.8W 32 119 01m09s
 ----- 19 3535 Jan 27 02:51:40 9360 18986 T -0.8469 1.0203 68.0S 132.1W 32 130 01m15s
 ----- 20 3553 Feb 06 11:37:00 9559 19209 T -0.8520 1.0222 63.9S 97.4E 31 144 01m23s
 ----- 21 3571 Feb 17 20:23:21 9759 19432 T -0.8569 1.0246 59.9S 34.9W 31 161 01m34s
 ----- 22 3589 Feb 28 05:06:43 9961 19655 T -0.8651 1.0274 56.4S 166.7W 30 183 01m46s
 ----- 23 3607 Mar 11 13:47:16 10166 19878 T -0.8759 1.0305 53.4S 61.9E 29 210 02m00s
 ----- 24 3625 Mar 21 22:22:33 10372 20101 T -0.8917 1.0336 51.3S 67.8W 27 246 02m15s
 ----- 25 3643 Apr 02 06:53:11 10581 20324 T -0.9117 1.0368 50.2S 163.8E 24 296 02m30s
 ----- 26 3661 Apr 12 15:16:58 10791 20547 T -0.9378 1.0398 50.8S 38.0E 20 380 02m42s
 ----- 27 3679 Apr 23 23:34:11 11004 20770 T -0.9697 1.0420 53.9S 84.1W 13 583 02m49s
 ----- 28 3697 May 04 07:44:22 11219 20993 T- -1.0079 1.0007 62.6S 165.7E 0
 ----- 29 3715 May 16 15:48:06 11436 21216 P -1.0514 0.9193 63.3S 36.5E 0
 ----- 30 3733 May 26 23:44:17 11655 21439 P -1.1015 0.8244 64.2S 91.0W 0
 ----- 31 3751 Jun 07 07:34:51 11876 21662 P -1.1563 0.7198 65.1S 142.6E 0
 ----- 32 3769 Jun 17 15:19:18 12099 21885 P -1.2161 0.6047 66.0S 17.4E 0
 ----- 33 3787 Jun 28 23:00:16 12324 22108 P -1.2789 0.4831 67.0S 107.3W 0

----- 34 3805 Jul 10 06:35:31 12551 22331 P -1.3462 0.3523 68.0S 128.9E 0

----- 35 3823 Jul 21 14:09:36 12780 22554 P -1.4144 0.2196 69.0S 4.9E 0

----- 36 3841 Jul 31 21:40:43 13012 22777 Pe -1.4848 0.0826 69.9S 118.8W 0

SAROS SERIES

176

Saros series 176 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

10945 -36 2608 Jun 04 23:55:35 1964 7525 Pb -1.5249 0.0294 67.5S 168.1W 0

10986 -35 2626 Jun 16 07:13:26 2055 7748 P -1.4523 0.1621 66.5S 72.1E 0

11026 -34 2644 Jun 26 14:29:01 2149 7971 P -1.3767 0.3016 65.5S 46.7W 0

11066 -33 2662 Jul 07 21:43:23 2245 8194 P -1.2992 0.4460 64.6S 164.8W 0

11107 -32 2680 Jul 18 04:58:41 2343 8417 P -1.2212 0.5923 63.7S 77.3E 0

11149 -31 2698 Jul 29 12:15:55 2443 8640 P -1.1437 0.7385 63.0S 40.9W 0

11191 -30 2716 Aug 09 19:35:30 2545 8863 P -1.0674 0.8829 62.3S 159.5W 0

11233 -29 2734 Aug 21 02:59:13 2649 9086 Ts -0.9937 1.0332 59.4S 89.8E 5 - 02m08s
 11276 -28 2752 Aug 31 10:28:18 2755 9309 T -0.9236 1.0394 49.4S 6.1W 22 339 02m46s
 11321 -27 2770 Sep 11 18:04:10 2864 9532 T -0.8583 1.0422 45.8S 115.7W 31 269 03m00s
 11366 -26 2788 Sep 22 01:45:51 2974 9755 T -0.7971 1.0439 44.4S 131.7E 37 238 03m08s
 11411 -25 2806 Oct 03 09:36:12 3086 9978 T -0.7426 1.0447 44.5S 16.3E 42 219 03m10s
 11456 -24 2824 Oct 13 17:34:17 3201 10201 T -0.6942 1.0449 45.7S 101.0W 46 205 03m10s
 11501 -23 2842 Oct 25 01:41:24 3317 10424 T -0.6527 1.0447 47.5S 139.8E 49 195 03m09s
 11547 -22 2860 Nov 04 09:55:28 3436 10647 T -0.6168 1.0441 49.6S 19.3E 52 186 03m07s
 11593 -21 2878 Nov 15 18:18:28 3557 10870 T -0.5879 1.0435 51.7S 102.6W 54 179 03m04s
 11640 -20 2896 Nov 26 02:48:19 3680 11093 T -0.5647 1.0427 53.6S 134.7E 55 173 03m02s
 11687 -19 2914 Dec 08 11:24:42 3805 11316 T -0.5469 1.0422 55.0S 11.2E 57 169 03m02s
 11732 -18 2932 Dec 18 20:06:44 3931 11539 T -0.5336 1.0418 55.4S 113.0W 57 166 03m01s
 11776 -17 2950 Dec 30 04:53:21 4060 11762 T -0.5243 1.0417 54.9S 121.7E 58 164 03m03s
 11820 -16 2969 Jan 09 13:43:10 4192 11985 T -0.5176 1.0420 53.3S 4.9W 59 164 03m06s
 11864 -15 2987 Jan 20 22:33:24 4325 12208 T -0.5111 1.0427 50.6S 132.7W 59 166 03m13s
 ----- -14 3005 Feb 01 07:24:50 4460 12431 T -0.5057 1.0439 47.1S 97.9E 59 170 03m21s
 ----- -13 3023 Feb 12 16:14:22 4597 12654 T -0.4990 1.0455 42.9S 32.4W 60 175 03m32s
 ----- -12 3041 Feb 23 01:01:12 4737 12877 T -0.4898 1.0475 38.2S 163.1W 60 181 03m47s
 ----- -11 3059 Mar 06 09:43:13 4878 13100 T -0.4765 1.0499 33.0S 66.5E 61 188 04m04s
 ----- -10 3077 Mar 16 18:20:47 5022 13323 T -0.4596 1.0526 27.6S 63.4W 62 195 04m24s
 ----- -09 3095 Mar 28 02:51:53 5167 13546 T -0.4371 1.0555 21.9S 167.8E 64 203 04m47s
 ----- -08 3113 Apr 08 11:15:45 5315 13769 T -0.4088 1.0585 16.1S 40.6E 66 210 05m11s
 ----- -07 3131 Apr 19 19:32:35 5465 13992 T -0.3744 1.0616 10.2S 84.9W 68 217 05m35s
 ----- -06 3149 Apr 30 03:41:55 5616 14215 T -0.3337 1.0645 4.3S 151.6E 70 223 05m58s
 ----- -05 3167 May 11 11:43:44 5770 14438 T -0.2868 1.0672 1.4N 30.3E 73 229 06m18s
 ----- -04 3185 May 21 19:38:05 5926 14661 T -0.2338 1.0694 6.9N 88.8W 77 232 06m32s
 ----- -03 3203 Jun 02 03:26:13 6084 14884 T -0.1756 1.0713 12.1N 154.2E 80 235 06m40s
 ----- -02 3221 Jun 12 11:08:26 6244 15107 T -0.1125 1.0724 16.7N 39.3E 84 237 06m40s

----- -01 3239 Jun 23 18:44:34 6406 15330 Tm -0.0445 1.0730 20.8N 73.5W 88 237 06m34s
 ----- 00 3257 Jul 04 02:17:24 6571 15553 T 0.0260 1.0728 24.2N 175.2E 88 237 06m22s
 ----- 01 3275 Jul 15 09:46:23 6737 15776 T 0.0997 1.0719 26.8N 65.5E 84 235 06m05s
 ----- 02 3293 Jul 25 17:14:44 6905 15999 T 0.1736 1.0701 28.5N 43.8W 80 232 05m46s
 ----- 03 3311 Aug 07 00:40:32 7076 16222 T 0.2492 1.0676 29.6N 152.2W 75 228 05m26s
 ----- 04 3329 Aug 17 08:08:47 7248 16445 T 0.3225 1.0643 29.9N 98.8E 71 222 05m04s
 ----- 05 3347 Aug 28 15:37:09 7423 16668 T 0.3954 1.0602 29.8N 10.5W 67 214 04m43s
 ----- 06 3365 Sep 07 23:09:08 7600 16891 T 0.4647 1.0556 29.4N 121.0W 62 205 04m21s
 ----- 07 3383 Sep 19 06:43:36 7778 17114 T 0.5314 1.0503 29.0N 127.4E 58 194 03m58s
 ----- 08 3401 Sep 30 14:24:12 7959 17337 T 0.5924 1.0445 28.6N 13.8E 54 181 03m35s
 ----- 09 3419 Oct 11 22:09:26 8142 17560 T 0.6490 1.0384 28.5N 101.4W 49 166 03m09s
 ----- 10 3437 Oct 22 06:00:44 8327 17783 T 0.6999 1.0320 28.8N 141.4E 45 148 02m42s
 ----- 11 3455 Nov 02 13:58:22 8514 18006 T 0.7449 1.0256 29.5N 22.0E 42 128 02m13s
 ----- 12 3473 Nov 12 22:03:21 8703 18229 T 0.7827 1.0192 30.6N 99.8W 38 104 01m43s
 ----- 13 3491 Nov 24 06:14:27 8894 18452 T 0.8153 1.0129 32.2N 136.2E 35 76 01m11s
 ----- 14 3509 Dec 05 14:31:38 9087 18675 H 0.8419 1.0069 34.1N 10.2E 32 44 00m39s
 ----- 15 3527 Dec 16 22:54:31 9283 18898 H 0.8634 1.0013 36.3N 117.8W 30 9 00m07s
 ----- 16 3545 Dec 27 07:22:46 9480 19121 A 0.8797 0.9962 38.7N 112.3E 28 28 00m21s
 ----- 17 3564 Jan 07 15:53:54 9680 19344 A 0.8930 0.9917 41.3N 18.8W 26 65 00m46s
 ----- 18 3582 Jan 18 00:28:30 9881 19567 A 0.9029 0.9877 44.1N 151.1W 25 102 01m07s
 ----- 19 3600 Jan 29 09:03:39 10085 19790 A 0.9118 0.9842 47.2N 76.0E 24 137 01m24s
 ----- 20 3618 Feb 08 17:39:17 10290 20013 A 0.9198 0.9813 50.6N 57.4W 23 170 01m35s
 ----- 21 3636 Feb 20 02:11:09 10498 20236 A 0.9304 0.9788 54.8N 169.3E 21 207 01m44s
 ----- 22 3654 Mar 02 10:41:11 10708 20459 A 0.9419 0.9767 59.3N 35.1E 19 250 01m48s
 ----- 23 3672 Mar 12 19:05:03 10920 20682 A 0.9577 0.9747 64.6N 100.6W 16 321 01m50s
 ----- 24 3690 Mar 24 03:23:13 11134 20905 A 0.9777 0.9726 70.2N 116.6E 11 497 01m51s
 ----- 25 3708 Apr 04 11:32:40 11350 21128 A+ 1.0042 0.9715 72.2N 54.0W 0
 ----- 26 3726 Apr 15 19:35:03 11568 21351 P 1.0359 0.9153 71.7N 172.3E 0

----- 27 3744 Apr 26 03:27:43 11788 21574 P 1.0746 0.8466 71.0N 41.7E 0
----- 28 3762 May 07 11:10:54 12010 21797 P 1.1202 0.7657 70.2N 85.9W 0
----- 29 3780 May 17 18:44:41 12235 22020 P 1.1727 0.6728 69.2N 149.6E 0
----- 30 3798 May 29 02:09:38 12461 22243 P 1.2317 0.5683 68.2N 27.8E 0
----- 31 3816 Jun 09 09:25:38 12690 22466 P 1.2968 0.4530 67.1N 91.1W 0
----- 32 3834 Jun 20 16:33:34 12920 22689 P 1.3675 0.3280 66.1N 152.5E 0
----- 33 3852 Jun 30 23:34:40 13153 22912 P 1.4427 0.1955 65.2N 38.2E 0
----- 34 3870 Jul 12 06:29:59 13387 23135 Pe 1.5216 0.0569 64.3N 74.3W 0

SAROS SERIES

177

Saros series 177 contains 69 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
GREATEST											°	km	
ECLIPSE													

11050 -36 2655 May 27 22:51:50 2207 8106 Pb 1.5050 0.0543 64.1N 62.4E 0
11091 -35 2673 Jun 07 06:25:46 2304 8329 P 1.4460 0.1665 64.9N 60.3W 0

11132 -34 2691 Jun 18 13:52:32 2403 8552 P 1.3818 0.2885 65.9N 178.4E 0
 11174 -33 2709 Jun 29 21:16:23 2504 8775 P 1.3157 0.4139 66.8N 57.5E 0
 11216 -32 2727 Jul 11 04:36:05 2608 8998 P 1.2468 0.5441 67.8N 62.7W 0
 11259 -31 2745 Jul 21 11:53:46 2713 9221 P 1.1767 0.6759 68.8N 177.0E 0
 11304 -30 2763 Aug 01 19:10:33 2821 9444 P 1.1066 0.8069 69.7N 56.5E 0
 11348 -29 2781 Aug 12 02:27:38 2930 9667 P 1.0373 0.9353 70.6N 64.8W 0
 11393 -28 2799 Aug 23 09:46:32 3042 9890 T 0.9698 1.0204 75.2N 127.2E 13 300 01m11s
 11438 -27 2817 Sep 02 17:07:37 3155 10113 T 0.9047 1.0186 66.5N 23.1W 25 150 01m14s
 11483 -26 2835 Sep 14 00:33:18 3271 10336 T 0.8441 1.0151 56.9N 147.8W 32 96 01m07s
 11529 -25 2853 Sep 24 08:03:33 3389 10559 H3 0.7880 1.0107 48.1N 92.4E 38 59 00m52s
 11575 -24 2871 Oct 05 15:39:10 3509 10782 H 0.7370 1.0057 40.2N 26.4W 42 29 00m30s
 11622 -23 2889 Oct 15 23:21:08 3631 11005 H 0.6918 1.0004 33.1N 145.6W 46 2 00m02s
 11669 -22 2907 Oct 28 07:09:47 3755 11228 A 0.6527 0.9949 26.8N 94.3E 49 23 00m31s
 11714 -21 2925 Nov 07 15:05:14 3881 11451 A 0.6202 0.9894 21.4N 26.9W 52 47 01m08s
 11759 -20 2943 Nov 18 23:06:18 4009 11674 A 0.5931 0.9840 17.0N 148.9W 54 70 01m48s
 11803 -19 2961 Nov 29 07:14:06 4140 11897 A 0.5722 0.9789 13.5N 87.7E 55 92 02m28s
 11847 -18 2979 Dec 10 15:27:25 4272 12120 A 0.5563 0.9740 11.1N 36.6W 56 112 03m07s
 11892 -17 2997 Dec 20 23:45:15 4406 12343 A 0.5449 0.9696 9.6N 161.9W 57 130 03m40s
 ----- -16 3016 Jan 02 08:06:22 4543 12566 A 0.5367 0.9657 9.2N 72.1E 57 146 04m08s
 ----- -15 3034 Jan 12 16:29:17 4681 12789 A 0.5306 0.9624 9.6N 54.2W 58 160 04m28s
 ----- -14 3052 Jan 24 00:53:13 4822 13012 A 0.5259 0.9595 10.9N 179.2E 58 171 04m42s
 ----- -13 3070 Feb 03 09:14:42 4965 13235 A 0.5196 0.9573 12.7N 53.2E 59 179 04m49s
 ----- -12 3088 Feb 14 17:34:38 5109 13458 A 0.5125 0.9556 15.1N 72.4W 59 185 04m51s
 ----- -11 3106 Feb 26 01:49:11 5256 13681 A 0.5015 0.9546 17.8N 163.5E 60 189 04m50s
 ----- -10 3124 Mar 08 09:58:47 5405 13904 A 0.4870 0.9540 20.7N 40.8E 61 189 04m46s
 ----- -09 3142 Mar 19 17:59:30 5556 14127 A 0.4658 0.9538 23.7N 79.3W 62 188 04m41s
 ----- -08 3160 Mar 30 01:53:34 5709 14350 A 0.4397 0.9540 26.5N 162.7E 64 185 04m36s
 ----- -07 3178 Apr 10 09:37:44 5864 14573 A 0.4060 0.9545 29.0N 47.9E 66 180 04m33s

-----06 3196 Apr 20 17:12:30 6022 14796 A 0.3652 0.9551 31.0N 64.0W 68 175 04m31s
 -----05 3214 May 02 00:37:04 6181 15019 A 0.3169 0.9558 32.3N 172.6W 71 169 04m32s
 -----04 3232 May 12 07:52:46 6342 15242 A 0.2620 0.9565 32.7N 81.5E 75 164 04m36s
 -----03 3250 May 23 14:59:10 6506 15465 A 0.1999 0.9570 31.9N 21.8W 78 160 04m43s
 -----02 3268 Jun 02 21:56:25 6671 15688 Am 0.1308 0.9573 29.8N 123.0W 82 157 04m54s
 -----01 3286 Jun 14 04:46:34 6839 15911 A 0.0565 0.9574 26.5N 137.1E 87 155 05m09s
 -----00 3304 Jun 25 11:30:12 7008 16134 A -0.0224 0.9570 22.0N 38.2E 89 157 05m27s
 -----01 3322 Jul 06 18:08:16 7180 16357 A -0.1054 0.9564 16.4N 60.2W 84 160 05m45s
 -----02 3340 Jul 17 00:42:38 7354 16580 A -0.1910 0.9552 9.9N 158.6W 79 167 06m03s
 -----03 3358 Jul 28 07:14:42 7530 16803 A -0.2780 0.9536 2.6N 102.7E 74 176 06m18s
 -----04 3376 Aug 07 13:46:52 7707 17026 A -0.3642 0.9515 5.3S 3.3E 69 190 06m30s
 -----05 3394 Aug 18 20:17:57 7887 17249 A -0.4510 0.9490 13.8S 96.5W 63 208 06m35s
 -----06 3412 Aug 30 02:52:38 8070 17472 A -0.5340 0.9461 22.6S 162.1E 58 233 06m37s
 -----07 3430 Sep 10 09:29:23 8254 17695 A -0.6148 0.9428 31.7S 59.6E 52 265 06m34s
 -----08 3448 Sep 20 16:12:43 8440 17918 A -0.6899 0.9392 40.9S 45.2W 46 308 06m27s
 -----09 3466 Oct 01 23:00:02 8628 18141 A -0.7612 0.9353 50.4S 152.1W 40 368 06m17s
 -----10 3484 Oct 12 05:56:32 8819 18364 A -0.8246 0.9313 59.7S 97.2E 34 453 06m06s
 -----11 3502 Oct 24 12:59:22 9011 18587 A -0.8824 0.9270 69.0S 19.3W 28 586 05m54s
 -----12 3520 Nov 03 20:11:29 9205 18810 A -0.9325 0.9227 77.3S 151.2W 21 824 05m42s
 -----13 3538 Nov 15 03:31:09 9402 19033 As -0.9763 0.9179 79.2S 36.6E 12 - 05m29s
 -----14 3556 Nov 25 11:00:41 9601 19256 A- -1.0122 0.9310 68.7S 114.1W 0
 -----15 3574 Dec 06 18:37:39 9801 19479 P -1.0419 0.8807 67.7S 121.3E 0
 -----16 3592 Dec 17 02:22:09 10004 19702 P -1.0658 0.8404 66.6S 4.7W 0
 -----17 3610 Dec 28 10:13:14 10209 19925 P -1.0844 0.8091 65.5S 131.8W 0
 -----18 3629 Jan 07 18:10:31 10416 20148 P -1.0987 0.7853 64.5S 100.0E 0
 -----19 3647 Jan 19 02:11:07 10625 20371 P -1.1102 0.7662 63.6S 28.7W 0
 -----20 3665 Jan 29 10:14:28 10836 20594 P -1.1198 0.7505 62.8S 157.8W 0
 -----21 3683 Feb 09 18:18:02 11049 20817 P -1.1295 0.7347 62.2S 73.3E 0

-----	22	3701	Feb 21	02:21:52	11264	21040	P	-1.1393	0.7188	61.7S	55.5W	0
-----	23	3719	Mar 04	10:21:32	11482	21263	P	-1.1528	0.6968	61.3S	176.8E	0
-----	24	3737	Mar 14	18:18:50	11701	21486	P	-1.1685	0.6711	61.2S	49.8E	0
-----	25	3755	Mar 26	02:09:40	11922	21709	P	-1.1895	0.6364	61.2S	75.5W	0
-----	26	3773	Apr 05	09:55:38	12146	21932	P	-1.2147	0.5944	61.4S	160.3E	0
-----	27	3791	Apr 16	17:33:03	12372	22155	P	-1.2472	0.5397	61.7S	38.2E	0
-----	28	3809	Apr 28	01:04:59	12599	22378	P	-1.2842	0.4766	62.2S	82.6W	0
-----	29	3827	May 09	08:28:51	12829	22601	P	-1.3282	0.4009	62.8S	158.4E	0
-----	30	3845	May 19	15:45:54	13061	22824	P	-1.3779	0.3146	63.6S	40.9E	0
-----	31	3863	May 30	22:55:59	13295	23047	P	-1.4333	0.2176	64.5S	75.1W	0
-----	32	3881	Jun 10	06:01:02	13531	23270	Pe	-1.4930	0.1120	65.4S	169.8E	0

SAROS SERIES

178

Saros series 178 contains 70 solar eclipses.

[illegible]

ECLIPSE

11242 -32 2738 Jun 09 15:23:02 2671 9133 Pb -1.5105 0.0905 67.1S 41.3W 0

11285 -31 2756 Jun 19 21:57:07 2778 9356 P -1.4326 0.2230 66.1S 149.9W 0

11330 -30 2774 Jul 01 04:24:54 2887 9579 P -1.3490 0.3657 65.1S 103.6E 0

11375 -29 2792 Jul 11 10:53:02 2998 9802 P -1.2650 0.5092 64.2S 2.8W 0

11420 -28 2810 Jul 22 17:18:37 3110 10025 P -1.1780 0.6579 63.4S 108.1W 0

11465 -27 2828 Aug 01 23:45:36 3225 10248 P -1.0917 0.8055 62.6S 146.4E 0

11511 -26 2846 Aug 13 06:14:04 3342 10471 A- -1.0057 0.9522 62.0S 40.8E 0

11557 -25 2864 Aug 23 12:47:18 3461 10694 A -0.9231 0.9378 48.1S 34.4W 22 586 05m47s

11603 -24 2882 Sep 03 19:25:39 3583 10917 A -0.8438 0.9390 42.7S 129.0W 32 408 05m52s

11650 -23 2900 Sep 15 02:09:43 3706 11140 A -0.7686 0.9394 40.1S 133.1E 40 340 05m52s

11696 -22 2918 Sep 26 09:02:12 3831 11363 A -0.6997 0.9391 39.2S 32.5E 45 308 05m54s

11741 -21 2936 Oct 06 16:02:39 3958 11586 A -0.6368 0.9385 39.4S 70.1W 50 290 05m57s

11785 -20 2954 Oct 17 23:12:15 4088 11809 A -0.5810 0.9377 40.4S 175.0W 54 280 06m03s

11829 -19 2972 Oct 28 06:30:35 4219 12032 A -0.5318 0.9369 41.9S 78.3E 58 274 06m10s

11873 -18 2990 Nov 08 13:59:19 4353 12255 A -0.4905 0.9360 43.5S 30.7W 60 272 06m19s

----- -17 3008 Nov 19 21:36:51 4489 12478 A -0.4560 0.9353 45.0S 141.3W 63 270 06m28s

----- -16 3026 Dec 01 05:22:50 4626 12701 A -0.4279 0.9348 46.1S 106.4E 64 269 06m37s

----- -15 3044 Dec 11 13:17:03 4766 12924 A -0.4061 0.9347 46.6S 7.5W 66 267 06m44s

----- -14 3062 Dec 22 21:18:40 4908 13147 A -0.3902 0.9350 46.4S 123.2W 67 264 06m48s

----- -13 3081 Jan 02 05:25:13 5052 13370 A -0.3775 0.9358 45.2S 119.8E 68 259 06m49s

----- -12 3099 Jan 13 13:35:31 5198 13593 A -0.3671 0.9371 43.1S 1.2E 68 252 06m45s

----- -11 3117 Jan 24 21:48:12 5346 13816 A -0.3584 0.9391 40.1S 118.7W 69 242 06m37s

----- -10 3135 Feb 05 06:02:16 5496 14039 A -0.3503 0.9416 36.4S 120.1E 69 231 06m25s

----- -09 3153 Feb 15 14:13:56 5649 14262 A -0.3396 0.9449 32.0S 1.4W 70 216 06m08s

----- -08 3171 Feb 26 22:24:07 5803 14485 A -0.3272 0.9486 27.1S 123.3W 71 199 05m47s

----- -07 3189 Mar 09 06:29:05 5959 14708 A -0.3097 0.9530 21.8S 115.5E 72 180 05m22s

----- -06 3207 Mar 20 14:30:31 6118 14931 A -0.2888 0.9578 16.2S 5.3W 73 160 04m53s
 ----- -05 3225 Mar 30 22:23:58 6278 15154 A -0.2606 0.9631 10.3S 124.4W 75 138 04m19s
 ----- -04 3243 Apr 11 06:12:49 6441 15377 A -0.2279 0.9687 4.3S 117.5E 77 115 03m42s
 ----- -03 3261 Apr 21 13:53:24 6605 15600 A -0.1874 0.9745 1.8N 1.6E 79 93 03m01s
 ----- -02 3279 May 02 21:28:15 6772 15823 A -0.1415 0.9805 7.8N 112.7W 82 70 02m18s
 ----- -01 3297 May 13 04:55:21 6941 16046 A -0.0880 0.9864 13.7N 135.3E 85 48 01m35s
 ----- 00 3315 May 25 12:17:52 7112 16269 A -0.0298 0.9923 19.3N 25.1E 88 27 00m52s
 ----- 01 3333 Jun 04 19:34:34 7285 16492 A 0.0342 0.9980 24.6N 83.0W 88 7 00m13s
 ----- 02 3351 Jun 16 02:47:00 7460 16715 H 0.1028 1.0033 29.2N 170.7E 84 12 00m21s
 ----- 03 3369 Jun 26 09:56:15 7637 16938 Hm 0.1750 1.0082 33.3N 66.1E 80 29 00m49s
 ----- 04 3387 Jul 07 17:03:52 7816 17161 H 0.2498 1.0126 36.5N 37.4W 75 45 01m11s
 ----- 05 3405 Jul 19 00:10:40 7997 17384 H2 0.3259 1.0165 38.8N 140.0W 71 60 01m28s
 ----- 06 3423 Jul 30 07:17:37 8181 17607 T 0.4028 1.0197 40.4N 117.7E 66 73 01m40s
 ----- 07 3441 Aug 09 14:26:58 8366 17830 T 0.4785 1.0222 41.2N 14.8E 61 86 01m49s
 ----- 08 3459 Aug 20 21:39:17 8554 18053 T 0.5527 1.0241 41.4N 89.0W 56 97 01m55s
 ----- 09 3477 Aug 31 04:54:55 8743 18276 T 0.6247 1.0253 41.5N 166.0E 51 109 01m58s
 ----- 10 3495 Sep 11 12:16:29 8935 18499 T 0.6924 1.0258 41.4N 58.9E 46 119 01m59s
 ----- 11 3513 Sep 22 19:43:55 9128 18722 T 0.7557 1.0258 41.7N 50.2W 41 131 01m58s
 ----- 12 3531 Oct 04 03:19:37 9324 18945 T 0.8130 1.0252 42.3N 161.9W 35 144 01m55s
 ----- 13 3549 Oct 14 11:01:23 9522 19168 T 0.8659 1.0241 43.9N 84.5E 30 160 01m50s
 ----- 14 3567 Oct 25 18:53:18 9722 19391 T 0.9110 1.0225 46.2N 32.2W 24 183 01m43s
 ----- 15 3585 Nov 05 02:52:23 9924 19614 T 0.9509 1.0205 49.9N 150.8W 18 225 01m32s
 ----- 16 3603 Nov 16 11:01:07 10128 19837 T 0.9834 1.0179 55.8N 89.0E 10 357 01m17s
 ----- 17 3621 Nov 26 19:16:50 10334 20060 P 1.0109 0.9821 64.0N 31.2W 0
 ----- 18 3639 Dec 08 03:41:46 10542 20283 P 1.0314 0.9437 64.9N 166.1W 0
 ----- 19 3657 Dec 18 12:12:50 10752 20506 P 1.0475 0.9137 65.9N 57.1E 0
 ----- 20 3675 Dec 29 20:50:09 10965 20729 P 1.0589 0.8926 66.9N 81.7W 0
 ----- 21 3694 Jan 09 05:32:23 11179 20952 P 1.0669 0.8778 68.0N 137.8E 0

-----	22	3712	Jan 21	14:18:35	11396	21175	P	1.0717	0.8691	69.0N	4.3W	0
-----	23	3730	Jan 31	23:06:06	11614	21398	P	1.0763	0.8611	70.0N	147.4W	0
-----	24	3748	Feb 12	07:53:57	11835	21621	P	1.0808	0.8533	70.9N	68.8E	0
-----	25	3766	Feb 22	16:40:53	12058	21844	P	1.0864	0.8436	71.6N	75.4W	0
-----	26	3784	Mar 05	01:25:57	12282	22067	P	1.0937	0.8308	72.1N	140.3E	0
-----	27	3802	Mar 17	10:06:07	12509	22290	P	1.1055	0.8096	72.3N	3.0W	0
-----	28	3820	Mar 27	18:42:18	12738	22513	P	1.1208	0.7816	72.2N	145.4W	0
-----	29	3838	Apr 08	03:11:57	12969	22736	P	1.1421	0.7422	71.9N	74.0E	0
-----	30	3856	Apr 18	11:36:14	13202	22959	P	1.1680	0.6939	71.4N	64.8W	0
-----	31	3874	Apr 29	19:52:15	13437	23182	P	1.2010	0.6318	70.7N	159.0E	0
-----	32	3892	May 10	04:02:47	13674	23405	P	1.2389	0.5598	69.8N	24.9E	0
-----	33	3910	May 22	12:05:28	13914	23628	P	1.2837	0.4740	68.9N	106.6W	0
-----	34	3928	Jun 01	20:02:12	14155	23851	P	1.3335	0.3780	67.9N	123.9E	0
-----	35	3946	Jun 13	03:51:58	14398	24074	P	1.3893	0.2700	66.9N	3.3W	0
-----	36	3964	Jun 23	11:36:53	14644	24297	P	1.4490	0.1540	65.9N	128.8W	0
-----	37	3982	Jul 04	19:16:58	14891	24520	Pe	1.5127	0.0298	65.0N	107.3E	0

SAROS SERIES

179

Saros series 179 contains 71 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.

GREATEST

° km

ECLIPSE

11226	-36	2731	Apr 28	13:11:25	2630	9045	Pb	1.5160	0.0518	62.1N	125.4W	0	
11269	-35	2749	May 08	20:49:43	2736	9268	P	1.4607	0.1506	62.7N	111.5E	0	
11314	-34	2767	May 20	04:23:19	2844	9491	P	1.4007	0.2593	63.4N	10.7W	0	
11358	-33	2785	May 30	11:50:35	2954	9714	P	1.3346	0.3806	64.2N	131.5W	0	
11403	-32	2803	Jun 10	19:15:11	3066	9937	P	1.2654	0.5091	65.1N	108.1E	0	
11448	-31	2821	Jun 21	02:35:50	3180	10160	P	1.1922	0.6463	66.1N	11.6W	0	
11493	-30	2839	Jul 02	09:56:30	3296	10383	P	1.1177	0.7870	67.1N	131.8W	0	
11539	-29	2857	Jul 12	17:14:23	3414	10606	P	1.0403	0.9341	68.1N	108.3E	0	
11585	-28	2875	Jul 24	00:34:50	3535	10829	T	0.9640	1.0388	81.5N	47.8W	15	514 02m04s
11632	-27	2893	Aug 03	07:55:25	3657	11052	T	0.8874	1.0448	76.0N	120.7E	27	328 02m40s
11679	-26	2911	Aug 15	15:20:21	3781	11275	T	0.8136	1.0488	65.5N	5.9W	35	280 03m10s
11724	-25	2929	Aug 25	22:47:43	3908	11498	T	0.7413	1.0515	55.6N	124.4W	42	254 03m37s
11768	-24	2947	Sep 06	06:21:54	4037	11721	T	0.6740	1.0534	46.5N	117.8E	47	238 04m01s
11812	-23	2965	Sep 16	14:01:24	4167	11944	T	0.6110	1.0543	37.9N	0.5W	52	225 04m20s
11856	-22	2983	Sep 27	21:47:41	4300	12167	T	0.5531	1.0547	30.0N	120.0W	56	216 04m36s
-----	-21	3001	Oct 09	05:41:17	4435	12390	T	0.5010	1.0544	22.6N	119.2E	60	207 04m47s
-----	-20	3019	Oct 20	13:42:54	4572	12613	T	0.4551	1.0537	16.0N	3.2W	63	199 04m54s
-----	-19	3037	Oct 30	21:52:52	4711	12836	T	0.4161	1.0527	10.1N	127.2W	65	191 04m56s
-----	-18	3055	Nov 11	06:09:53	4852	13059	T	0.3826	1.0515	5.0N	107.5E	67	184 04m56s
-----	-17	3073	Nov 21	14:35:32	4995	13282	T	0.3561	1.0502	0.8N	19.5W	69	178 04m52s
-----	-16	3091	Dec 02	23:07:55	5140	13505	T	0.3347	1.0490	2.4S	147.7W	70	173 04m47s
-----	-15	3109	Dec 14	07:47:00	5287	13728	T	0.3188	1.0479	4.5S	82.7E	71	168 04m40s

-----14	3127	Dec 25	16:30:49	5437	13951	T	0.3066	1.0471	5.6S	47.8W	72	165	04m33s
-----13	3146	Jan 05	01:19:18	5588	14174	T	0.2981	1.0466	5.6S	179.3W	73	162	04m26s
-----12	3164	Jan 16	10:09:49	5742	14397	T	0.2913	1.0465	4.7S	48.6E	73	162	04m20s
-----11	3182	Jan 26	19:01:19	5897	14620	T	0.2853	1.0468	3.0S	83.9W	73	162	04m15s
-----10	3200	Feb 07	03:52:28	6055	14843	T	0.2788	1.0476	0.6S	143.7E	74	164	04m12s
-----09	3218	Feb 17	12:42:24	6215	15066	T	0.2712	1.0488	2.4N	11.4E	74	168	04m12s
-----08	3236	Feb 28	21:27:53	6376	15289	T	0.2599	1.0504	5.6N	119.7W	75	173	04m15s
-----07	3254	Mar 11	06:09:24	6540	15512	T	0.2456	1.0523	8.9N	110.2E	76	178	04m19s
-----06	3272	Mar 21	14:44:38	6706	15735	T	0.2260	1.0545	12.2N	18.2W	77	184	04m27s
-----05	3290	Apr 01	23:14:46	6874	15958	T	0.2020	1.0568	15.4N	145.0W	78	191	04m36s
-----04	3308	Apr 13	07:35:50	7044	16181	T	0.1705	1.0593	18.0N	90.8E	80	198	04m48s
-----03	3326	Apr 24	15:51:23	7216	16404	T	0.1344	1.0616	20.1N	31.6W	82	204	05m02s
-----02	3344	May 04	23:57:51	7391	16627	T	0.0910	1.0637	21.3N	151.3W	85	210	05m18s
-----01	3362	May 16	07:58:26	7567	16850	Tm	0.0426	1.0656	21.6N	90.6E	87	215	05m35s
-----00	3380	May 26	15:49:54	7745	17073	T	-0.0133	1.0670	20.7N	25.1W	89	219	05m53s
-----01	3398	Jun 06	23:36:42	7926	17296	T	-0.0731	1.0680	18.7N	139.9W	86	222	06m09s
-----02	3416	Jun 18	07:16:16	8108	17519	T	-0.1383	1.0683	15.4N	106.7E	82	225	06m21s
-----03	3434	Jun 29	14:51:32	8293	17742	T	-0.2070	1.0679	11.1N	6.2W	78	226	06m29s
-----04	3452	Jul 09	22:21:45	8479	17965	T	-0.2794	1.0668	5.7N	118.5W	74	227	06m28s
-----05	3470	Jul 21	05:49:57	8668	18188	T	-0.3529	1.0649	0.5S	128.9E	69	227	06m18s
-----06	3488	Jul 31	13:15:49	8859	18411	T	-0.4279	1.0622	7.5S	16.2E	65	225	05m59s
-----07	3506	Aug 12	20:40:32	9052	18634	T	-0.5031	1.0587	15.1S	96.9W	60	223	05m30s
-----08	3524	Aug 23	04:05:48	9247	18857	T	-0.5771	1.0544	23.2S	149.2E	55	219	04m54s
-----09	3542	Sep 03	11:32:45	9444	19080	T	-0.6490	1.0493	31.7S	34.2E	49	214	04m14s
-----10	3560	Sep 13	19:02:16	9643	19303	T	-0.7181	1.0437	40.5S	82.3W	44	208	03m32s
-----11	3578	Sep 25	02:35:28	9844	19526	T	-0.7834	1.0374	49.6S	159.2E	38	201	02m49s
-----12	3596	Oct 05	10:13:49	10047	19749	T	-0.8439	1.0306	58.8S	37.4E	32	192	02m08s
-----13	3614	Oct 16	17:58:11	10252	19972	T	-0.8986	1.0232	67.9S	90.6W	26	181	01m30s

----- 14 3632 Oct 27 01:47:21 10460 20195 T -0.9487 1.0153 75.9S 124.8E 18 171 00m55s
 ----- 15 3650 Nov 07 09:44:01 10669 20418 T -0.9920 1.0060 74.8S 58.9W 6 210 00m19s
 ----- 16 3668 Nov 17 17:46:43 10881 20641 P -1.0299 0.9392 69.4S 157.2E 0
 ----- 17 3686 Nov 29 01:57:01 11094 20864 P -1.0609 0.8805 68.3S 23.9E 0
 ----- 18 3704 Dec 10 10:11:46 11310 21087 P -1.0876 0.8303 67.3S 109.9W 0
 ----- 19 3722 Dec 21 18:33:25 11528 21310 P -1.1082 0.7918 66.2S 115.0E 0
 ----- 20 3741 Jan 01 02:58:57 11748 21533 P -1.1251 0.7602 65.2S 20.5W 0
 ----- 21 3759 Jan 12 11:28:24 11969 21756 P -1.1382 0.7358 64.2S 156.6W 0
 ----- 22 3777 Jan 22 19:59:09 12193 21979 P -1.1497 0.7146 63.3S 67.3E 0
 ----- 23 3795 Feb 03 04:31:17 12419 22202 P -1.1596 0.6965 62.6S 68.9W 0
 ----- 24 3813 Feb 14 13:02:06 12647 22425 P -1.1699 0.6778 62.0S 155.5E 0
 ----- 25 3831 Feb 25 21:30:08 12878 22648 P -1.1822 0.6558 61.6S 20.7E 0
 ----- 26 3849 Mar 08 05:54:27 13110 22871 P -1.1969 0.6297 61.3S 113.0W 0
 ----- 27 3867 Mar 19 14:13:48 13344 23094 P -1.2152 0.5973 61.2S 114.5E 0
 ----- 28 3885 Mar 29 22:25:48 13581 23317 P -1.2389 0.5556 61.3S 16.1W 0
 ----- 29 3903 Apr 11 06:30:16 13819 23540 P -1.2680 0.5044 61.5S 144.8W 0
 ----- 30 3921 Apr 21 14:26:09 14060 23763 P -1.3034 0.4421 61.9S 88.5E 0
 ----- 31 3939 May 02 22:13:52 14302 23986 P -1.3449 0.3692 62.4S 36.3W 0
 ----- 32 3957 May 13 05:50:35 14547 24209 P -1.3943 0.2824 63.1S 158.5W 0
 ----- 33 3975 May 24 13:19:28 14794 24432 P -1.4490 0.1863 63.9S 81.0E 0
 ----- 34 3993 Jun 03 20:38:13 15042 24655 Pe -1.5105 0.0782 64.8S 37.2W 0

SAROS SERIES

180

Saros series 180 contains 70 solar eclipses.

SEQ.	REL.	CALENDAR	TD	ΔT	LUNA	ECL.	GAMMA	ECL.	LAT	LONG	SUN	PATH	CENTRAL
NUM.	NUM.	DATE	OF	s	NUM.	TYPE		MAG.	°	°	ALT	WIDTH	DUR.
											°	km	
GREATEST													
ECLIPSE													
11295	-37	2760 Apr 08	03:22:07	2801	9403	Pb	-1.5099	0.0484	71.7S	151.0W	0		
11340	-36	2778 Apr 19	11:29:53	2910	9626	P	-1.4770	0.1100	71.2S	74.0E	0		
11385	-35	2796 Apr 29	19:28:58	3021	9849	P	-1.4377	0.1839	70.5S	58.4W	0		
11430	-34	2814 May 11	03:19:42	3134	10072	P	-1.3923	0.2696	69.7S	171.9E	0		
11475	-33	2832 May 21	11:02:59	3250	10295	P	-1.3411	0.3662	68.7S	44.7E	0		
11521	-32	2850 Jun 01	18:39:24	3367	10518	P	-1.2846	0.4728	67.8S	80.3W	0		
11567	-31	2868 Jun 12	02:08:55	3487	10741	P	-1.2230	0.5889	66.8S	157.0E	0		
11614	-30	2886 Jun 23	09:33:12	3608	10964	P	-1.1577	0.7117	65.8S	36.1E	0		
11661	-29	2904 Jul 04	16:52:58	3732	11187	P	-1.0890	0.8402	64.8S	83.3W	0		
11706	-28	2922 Jul 16	00:09:45	3858	11410	P	-1.0185	0.9713	64.0S	158.3E	0		
11751	-27	2940 Jul 26	07:23:06	3986	11633	T	-0.9456	1.0244	48.0S	60.3E	18	256	01m56s
11795	-26	2958 Aug 06	14:36:40	4115	11856	T	-0.8736	1.0235	40.0S	45.9W	29	161	01m58s
11839	-25	2976 Aug 16	21:49:43	4247	12079	T	-0.8016	1.0210	35.2S	152.8W	36	117	01m48s
11883	-24	2994 Aug 28	05:05:38	4381	12302	T	-0.7327	1.0176	32.5S	99.3E	43	87	01m31s
-----	-23	3012 Sep 08	12:22:53	4518	12525	T	-0.6655	1.0134	31.1S	8.8W	48	60	01m09s
-----	-22	3030 Sep 19	19:45:50	4656	12748	H	-0.6036	1.0087	31.0S	118.2W	53	37	00m45s
-----	-21	3048 Sep 30	03:12:27	4796	12971	H	-0.5453	1.0034	31.7S	131.6E	57	14	00m18s

-----20	3066	Oct 11	10:45:14	4938	13194	A	-0.4930	0.9980	32.9S	20.2E	60	8	00m10s
-----19	3084	Oct 21	18:23:57	5083	13417	A	-0.4461	0.9923	34.6S	92.5W	63	30	00m41s
-----18	3102	Nov 03	02:10:00	5229	13640	A	-0.4062	0.9866	36.5S	153.3E	66	51	01m13s
-----17	3120	Nov 13	10:02:55	5378	13863	A	-0.3725	0.9809	38.2S	37.9E	68	73	01m46s
-----16	3138	Nov 24	18:01:22	5528	14086	A	-0.3440	0.9756	39.7S	78.5W	70	93	02m19s
-----15	3156	Dec 05	02:07:04	5681	14309	A	-0.3225	0.9704	40.7S	163.7E	71	112	02m53s
-----14	3174	Dec 16	10:17:28	5836	14532	A	-0.3059	0.9657	41.0S	44.9E	72	130	03m26s
-----13	3192	Dec 26	18:32:48	5992	14755	A	-0.2937	0.9615	40.4S	75.0W	73	146	03m58s
-----12	3211	Jan 07	02:49:49	6151	14978	A	-0.2840	0.9578	39.0S	164.4E	73	160	04m27s
-----11	3229	Jan 17	11:09:39	6312	15201	A	-0.2771	0.9546	36.8S	42.6E	74	172	04m53s
-----10	3247	Jan 28	19:28:43	6475	15424	A	-0.2705	0.9521	33.7S	79.6W	74	182	05m16s
-----09	3265	Feb 08	03:46:31	6640	15647	A	-0.2636	0.9502	29.9S	157.7E	75	189	05m35s
-----08	3283	Feb 19	12:00:36	6808	15870	A	-0.2544	0.9488	25.5S	35.2E	75	194	05m52s
-----07	3301	Mar 02	20:10:47	6977	16093	A	-0.2424	0.9479	20.6S	86.9W	76	197	06m05s
-----06	3319	Mar 14	04:14:01	7148	16316	A	-0.2252	0.9476	15.2S	152.3E	77	197	06m16s
-----05	3337	Mar 24	12:10:12	7322	16539	A	-0.2028	0.9476	9.6S	32.8E	78	196	06m24s
-----04	3355	Apr 04	19:57:46	7497	16762	A	-0.1738	0.9480	3.7S	84.7W	80	194	06m29s
-----03	3373	Apr 15	03:37:29	7675	16985	A	-0.1391	0.9486	2.3N	159.7E	82	191	06m32s
-----02	3391	Apr 26	11:05:54	7854	17208	Am	-0.0952	0.9494	8.4N	47.1E	85	187	06m30s
-----01	3409	May 07	18:26:19	8036	17431	A	-0.0453	0.9501	14.5N	63.1W	87	183	06m25s
-----00	3427	May 19	01:35:56	8220	17654	A	0.0132	0.9509	20.5N	170.2W	89	180	06m15s
-----01	3445	May 29	08:38:34	8406	17877	A	0.0767	0.9514	26.2N	85.1E	85	178	06m02s
-----02	3463	Jun 09	15:30:20	8593	18100	A	0.1487	0.9518	31.6N	16.0W	81	179	05m46s
-----03	3481	Jun 19	22:17:21	8783	18323	A	0.2240	0.9518	36.3N	114.9W	77	181	05m30s
-----04	3499	Jul 01	04:56:20	8975	18546	A	0.3058	0.9515	40.5N	149.3E	72	187	05m16s
-----05	3517	Jul 12	11:32:07	9170	18769	A	0.3895	0.9508	43.9N	55.3E	67	196	05m04s
-----06	3535	Jul 23	18:02:43	9366	18992	A	0.4770	0.9496	46.5N	36.5W	61	210	04m57s
-----07	3553	Aug 03	00:33:22	9564	19215	A	0.5639	0.9479	48.3N	127.8W	55	230	04m54s

-----	08	3571	Aug 14	07:02:23	9764	19438	A	0.6519	0.9457	49.6N	141.7E	49	261	04m56s
-----	09	3589	Aug 24	13:33:05	9967	19661	A	0.7381	0.9430	50.8N	51.0E	42	307	05m02s
-----	10	3607	Sep 04	20:06:06	10171	19884	A	0.8220	0.9396	52.1N	39.9W	34	384	05m11s
-----	11	3625	Sep 15	02:44:00	10378	20107	A	0.9016	0.9356	54.3N	130.5W	25	542	05m21s
-----	12	3643	Sep 26	09:27:22	10586	20330	An	0.9764	0.9302	58.5N	144.6E	12	-	05m27s
-----	13	3661	Oct 06	16:17:07	10797	20553	P	1.0457	0.8806	61.3N	57.3E	0		
-----	14	3679	Oct 17	23:14:54	11010	20776	P	1.1084	0.7737	61.6N	54.9W	0		
-----	15	3697	Oct 28	06:20:34	11225	20999	P	1.1646	0.6785	62.0N	169.2W	0		
-----	16	3715	Nov 09	13:34:34	11442	21222	P	1.2136	0.5955	62.6N	74.3E	0		
-----	17	3733	Nov 19	20:57:38	11661	21445	P	1.2553	0.5254	63.4N	44.7W	0		
-----	18	3751	Dec 01	04:29:25	11882	21668	P	1.2898	0.4676	64.2N	166.0W	0		
-----	19	3769	Dec 11	12:09:51	12105	21891	P	1.3174	0.4215	65.2N	70.1E	0		
-----	20	3787	Dec 22	19:56:35	12330	22114	P	1.3400	0.3837	66.2N	55.7W	0		
-----	21	3806	Jan 03	03:51:05	12557	22337	P	1.3564	0.3565	67.3N	176.2E	0		
-----	22	3824	Jan 14	11:50:06	12787	22560	P	1.3689	0.3355	68.4N	46.4E	0		
-----	23	3842	Jan 24	19:53:24	13018	22783	P	1.3785	0.3193	69.4N	85.2W	0		
-----	24	3860	Feb 05	03:57:58	13251	23006	P	1.3874	0.3043	70.4N	142.4E	0		
-----	25	3878	Feb 15	12:04:05	13487	23229	P	1.3952	0.2908	71.2N	8.9E	0		
-----	26	3896	Feb 26	20:09:05	13725	23452	P	1.4043	0.2751	71.8N	125.0W	0		
-----	27	3914	Mar 10	04:11:17	13964	23675	P	1.4157	0.2551	72.2N	101.4E	0		
-----	28	3932	Mar 20	12:09:50	14206	23898	P	1.4305	0.2292	72.3N	31.5W	0		
-----	29	3950	Mar 31	20:03:09	14450	24121	P	1.4499	0.1951	72.2N	163.1W	0		
-----	30	3968	Apr 11	03:50:42	14696	24344	P	1.4742	0.1524	71.8N	67.0E	0		
-----	31	3986	Apr 22	11:30:56	14944	24567	P	1.5047	0.0986	71.2N	60.5W	0		
-----	32	4004	May 02	19:04:50	15194	24790	Pe	1.5404	0.0350	70.4N	174.2E	0		